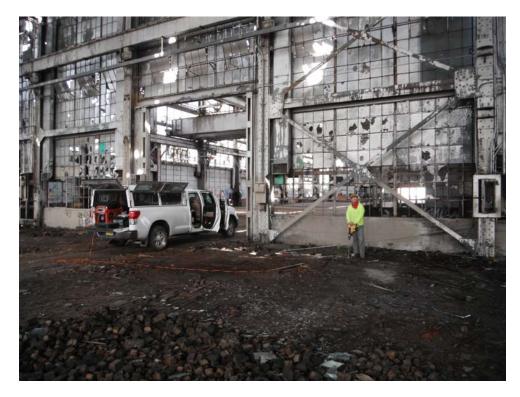
# PARCEL 8 ADDITIONAL CHARACTERIZATION REPORT

# **CITY OF ALBUQUERQUE RAIL YARDS** Albuquerque, Bernalillo County, New Mexico



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### ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
ACBM	asbestos-containing building materials
ATSF	Atchison, Topeka and Santa Fe
Beacon	Beacon Environmental Services
BNSF	Burlington Northern Santa Fe
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CCOC	Conditional Certificate of Completion
CNS	Covenant Not to Sue
COA	City of Albuquerque
COC	Certificate of Completion
COPC	contaminants of potential concern
Crisp	Crisp Analytical LLC
CSM	conceptual site model
DCE	DC Environmental
DRO	diesel range organics
EDB	1,2-dibromoethane
EPA	U.S. Environmental Protection Agency
ft	feet or foot
GRO	gasoline range organics
HEAL	Hall Environmental Analysis Laboratory
Innovar	Innovar Environmental, Inc.
INTERA	INTERA Incorporated
LBP	lead-based paint
LNAPL	light non-aqueous phase liquid
MDL	method detection limit
mg/cm <sup>2</sup>	milligrams per square centimeter
mL	milliliter
MRO	motor oil range organics
NMED	New Mexico Environment Department
OSHA	Occupational Safety and Health Administration



PID	photoionization detector
PPE	personal protective equipment
Report	this <i>Parcel 8 Additional Characterization Report</i>
RL	reporting detection limit
RMD	Radiation Monitoring Device
SIMs	selective ion monitoring
Site	Albuquerque Rail Yards located in downtown Albuquerque, New Mexico
SOP	standard operating procedure
SOW	Scope of Work (INTERA, 2016a)
SSHASP	site-specific health and safety plan
ТРН	total petroleum hydrocarbons
VISL	vapor intrusion screening level
Vista	Vista Geosciences LLC
VOC	volatile organic compound
VRP	Voluntary Remediation Program (New Mexico Environment Department)



### **1.0 INTRODUCTION**

In accordance with the Scope of Work (SOW) submitted on August 10, 2016 (INTERA, 2016a) to the City of Albuquerque (COA), INTERA Incorporated (INTERA) is submitting this *Parcel 8 Additional Characterization Report* (Report) documenting the completion of the additional characterization activities conducted at the Albuquerque Rail Yards (Site) located in downtown Albuquerque, New Mexico in support of participation in the New Mexico Environmental Department (NMED) Voluntary Remediation Program (VRP). The Albuquerque Rail Yards consists of Areas A, B, C and Tract A. The Site location is presented on **Figure 1**.

#### 1.1 Background

The Site is located between 2nd Street and Commercial Street in downtown Albuquerque, New Mexico, and comprises approximately 27 acres (Areas A, B, C and Tract A) located within the former Atchison, Topeka and Santa Fe (ATSF)/Burlington Northern Santa Fe (BNSF) Central Works Equipment Facility Railyard that operated from the 1880s to the early 1990s. As a result of previous operations, the Site sustained environmental impacts from both petroleum hydrocarbon and metal contamination. Contamination is present in both the Site vadose/unsaturated zone (Site soils and soil vapor) and in the saturated zone (Site groundwater) and includes residual light non-aqueous phase liquid (LNAPL), metals adsorbed to soil particles, organic vapors, and organic and inorganic solutes dissolved in groundwater.

Although substantial efforts have been made in the past to fully delineate contamination for impacted Site media, the extent of contamination is still unknown for certain media and Site areas and these are identified as data gaps in the Conceptual Site Model (CSM) developed for the Site (INTERA, 2015). In the CSM, INTERA concluded that the magnitude with which identified data gaps will impact Site redevelopment plans is dependent on the final redevelopment scenario(s) selected for the Site. Additional characterization sampling efforts at the Site should be conducted based on the redevelopment option(s) selected; however, full characterization or remediation of all impacted media may not be required if sufficient information exists to document that exposure pathways to these media are incomplete or if engineering controls are proposed that would render a potential exposure pathway incomplete. In addition, both asbestos-containing building materials (ACBM) and lead-based paint (LBP) were used in many of the remaining Site buildings; contamination related to these building materials will also need to be mitigated during any building demolition or building renovation activities.

Numerous environmental investigations have been conducted at the Albuquerque Rail Yards since 1991. Current soil and groundwater environmental contamination persists at the Site. The nature and extent of the contamination within environmental media varies across the Site

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regarding depth and contaminants of potential concern (COPCs). Metal contamination in soils is generally more prevalent in the center and northern portions of the Site and petroleum hydrocarbon contamination persists in soils and groundwater in the central and southern portions of the Site. Based on the CSM developed for the Site, the following constituents are identified as Site soil COPCs (INTERA, 2016):

- Residential: antimony, arsenic, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chromium, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, iron, lead, thallium, TPH DRO + MRO (the sum of total petroleum hydrocarbons [TPH] diesel range organics [DRO] plus motor oil range organics [MRO]), and TPH
- Industrial/occupational: arsenic, benzo(a)pyrene, lead, thallium, TPH DRO + MRO, and TPH
- Construction worker: arsenic, chromium, lead, manganese, and thallium

Additionally, based on the magnitude of Site soil petroleum hydrocarbon concentrations, residual LNAPL is likely present in Site soils in the southeastern portion of the Site.

The COA and the Site Developer, are seeking to complete Site redevelopment within the NMED VRP. By actively participating in the NMED VRP (and upon successful completion of any remediation actions deemed necessary), the COA will be able to obtain a Conditional Certificate of Completion (CCOC) and/or Certificate of Completion (COC) for either the entire Site or specific parcels at the Site. The CCOC or the COC will document that current conditions in a designated area(s) and/or throughout the Site meet applicable environmental quality standards and will provide NMED enforcement protection for the COA and liability protection for lenders. In addition, once a CCOC or COC is issued, a Covenant Not to Sue (CNS) may be transferred to a selected prospective purchaser and/or future owner of the Site.

The Site Developer has divided the Site into ten parcels (Parcel 1 – Parcel 10) for redevelopment purposes. The locations of the ten parcels are shown on **Figure 2a.** Parcel 8, which this Report summarizes, contains the combined footprint of the historic Boiler Shop, Flue Shop, and Tender Repair Shop structures (**Figure 2b**). The three structures are currently linked to one another through interior connections, thereby affording the possibility of a single tenant utilizing all three spaces. Alternatively, Parcel 8 may be developed in a multi-tenant arrangement with common areas. Similar to Parcel 7, Parcel 8 accesses 2nd Street via Parcel 6 and will use the parking area in Parcel 10 to the North (Samitaur, 2014).

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#### 1.2 Scope of Work

INTERA developed a SOW to complete additional characterization activities throughout the Site to fill in the data gaps identified in the CSM (INTERA, 2015). The primary intended redevelopment use of Parcel 8 includes office/business space and includes the historic Boiler Shop (including roof tiles), Flue Shop, and Tender Repair Shop. Further characterization of Parcel 8 includes an ACBM and LBP survey, conducted by DCE, for the three buildings and sub-slab soil vapor sampling within each structure. Although the Site redevelopment plan has been developed, additional characterization activities were designed for a site-wide residential redevelopment scenario to allow flexibility for a variety of redevelopment plans while also evaluating construction worker safety. The CSM developed for the Site (INTERA, 2015), VRP Preliminary Work Plan (INTERA, 2016b), and Site redevelopment plan (Samitaur, 2014) were critical in the development of this report.

The approved SOW (INTERA, 2016a) included the following tasks for Parcel 8:

- Collect ten sub-slab soil vapor samples below the concrete slab of the Boiler Shop, Flue Shop, and Tender Repair Shop using Vapor Pins<sup>™</sup> and submit for analysis of volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (EPA) Method TO-17, and,
- Oversee an ACBM and LBP survey for each structure.

#### 1.3 Work Plan Deviations

There were no work plan deviations during this additional characterization field event.



## 2.0 FIELD ACTIVITIES

Field activities for this additional characterization event were conducted on October 26 and 31, 2016 and November 1 through 3, 2016. The Site-Specific Health and Safety Plan (SSHASP) was reviewed in detail by INTERA field staff, was followed during all Site activities, and was used as a guide for the field-work health and safety meeting. Work was performed in Occupational Safety and Health Administration (OSHA) Level D personal protective equipment (PPE). Copies of the field notes and field forms are included in **Appendix A**.

### 2.1 Sub-Slab Soil Vapor Sampling

On October 31, 2016 and November 2 and 3, 2016, 10 sub-slab soil vapor samples were collected below the concrete slabs of the Boiler Shop, Tender Repair Shop, and Flue Shop structures using Vapor Pins<sup>™</sup>. Six sub-slab soil vapor samples (SV-08-01, SV-08-02, SV-08-07, SV-08-08, SV-08-09, and SV-08-10) were collected below the concrete slab of the Boiler Shop structure, two sub-slab soil vapor samples (SV-08-03 and SV-08-04) were collected below the concrete slab of the Flue Shop and two sub-slab soil vapor samples (SV-08-05 and SV-08-06) were collected below the concrete slab of the render Repair Shop using Vapor Pins<sup>™</sup>. The Vapor Pins<sup>™</sup> borings were installed using a rotary hammer drill equipped with a 5/8-in hammer bit and drilled to an approximate depth of 2-feet below the top of the concrete slab. The concrete slab thickness ranged from 6- to 11-inches thick in the Boiler Shop, 5.5- to 14.5-inches thick in the Flue Shop, and was 12-inches thick in the Tender Repair shop; the boring was continued to a depth of 2-feet in order to produce a small vapor well below each Vapor Pin<sup>™</sup>. The Vapor Pins<sup>™</sup> were fitted with silicone sleeves and hammered into each slab hole per the Vapor Pin<sup>™</sup> installation standard operating procedure (SOP).

Soil vapor samples were collected through Teflon lined polyethylene tubing attached directly to the Vapor Pin<sup>TM</sup>. The tubing was then connected to a three-way valve which is then connected to the hand-held sampling units and/or the collection vessel (sorbent tubes) as well as a vacuum pump located at the surface. Once the soil gas sampling system was set up, the soil gas was purged out of the boring using a vacuum pump and flow meter, carbon dioxide and oxygen (CO<sub>2</sub>/O<sub>2</sub>) readings were monitored, and purging continued until these readings remained stable for one minute. Once a minimum of three volumes was purged and stabilization was achieved, the soil gas was screened using a hand-held photoionization detector (PID) prior to sample collection and the concentration was recorded. The soil gas samples were then collected by INTERA by pumping directly through a sorbent tube at a rate of 200 milliliters (ml) per minute for a period of five minutes (total of 1-liter of soil vapor passes through the sorbent tube) at each sampling location.

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The sub-slab soil vapor samples were submitted for laboratory analysis of VOCs via EPA Method TO-17 by Vista Geosciences LLC (Vista) to Beacon Environmental Services (Beacon). The laboratory analytical results are summarized in **Table 1**, copies of field forms are provided in **Appendix A**, and a copy of the sub-slab soil vapor laboratory report is in **Appendix B**.

### 2.2 ACBM and LBP Sampling

DC Environmental, Inc. (DCE) of Albuquerque, New Mexico, an INTERA subcontractor, performed an asbestos and LBP survey at the Site on October 26 and 31, 2016 and November 1, 2016. The asbestos/LBP survey was conducted to determine the presence, location, and quantity of asbestos remaining within the historic Boiler Shop, Flue Shop, and Tender Repair Shop structures and to establish the basis for the presence of lead-containing finishes within the Site structures (DCE, 2016).

DCE conducted a visual inspection for asbestos-containing building materials within teach building and bulk samples were tested for asbestos using Polarized Light Microscopy and stereomicroscopy bulk asbestos analysis. Analysis was conducted by Crisp Analytical, LLC (Crisp) of Carrollton, Texas. Crisp is an accredited laboratory and recognized by the National Voluntary Laboratory Accreditation Program (DCE, 2016).

The presence of lead-based paint was assessed in substantial compliance with the Housing and Urban Development guidelines. DCE conducted the surface coating screening survey of the interior and exterior of the building to generally identify building components coated with a surface coating that contains lead. The survey consisted of testing the lead concentrations of each of the accessible surfaces using a Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence (XRF) device. The determination of lead in paint is defined as a surface content of at least 1.0 milligrams per square centimeter. If the XRF readings were between the 0.9 to 1.0 mg/cm<sup>2</sup> range, then the readings are declared as either lead-based paint or lead-containing materials, and sampling is recommended. Surfaces that were tested with the XRF device included, but were not limited to the following: doors, ceiling, painted walls, structural steel support, painted door components, roof components, ventilation duct, gates, and framing. In addition, bulk samples of paint chips were collected to verify the XRF readings. Lead-based paint is further defined if laboratory analysis determines the lead content to be one-half percent (0.5 %) by weight or greater when analyzed by Flame Atomic Absorption (DCE, 2016).



## 3.0 RESULTS AND DISCUSSION

The sub-slab soil vapor results of the 2016 additional characterization field activities conducted within Parcel 8 of the Site are summarized in the following subsections. These new data have been complied with historic data previously summarized in the Site CSM (INTERA, 2015) to provide an overall assessment of the nature and extent of the contamination for the Parcel 8. A CSM Update section has been included to facilitate evaluation of all Site data with regards to impacts to future redevelopment.

Select soil vapor samples had elevated laboratory reporting detection limits (RLs) for select constituents due to interference from elevated concentrations of other compounds. For these samples, INTERA requested that the laboratory (Beacon) report using the method detection limit (MDL) and flag the results as estimated (J qualifier). Reporting down to the MDL resulted in all laboratory RLs being lower than the NMED vapor intrusion screening levels (VISLs) with the exception of 1,2-dibromoethane (EDB) in soil vapor/soil gas. The RL EDB will be discussed further in Section 3.1.

NMED does not have an established VISLs for several constituents including: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, 1,4-dioxane, and 2-methylnaphthalene. INTERA was, however, able to calculate the VISLs for 1,2,4-trimethylbenzene and 1,4-dioxane using the EPA VISLs Calculator. The methodology behind the calculations is explained in more detail in **Appendix C**.

### 3.1 Sub-Slab Soil Vapor Results

1,3-dichlorobenzene was detected in all 10 sub-slab soil vapor samples (**Table 1**). NMED does not have an established VISL for 1,3-dichlorobenzene and a VISL could not be calculated using the EPA VISLs Calculator (**Appendix C**).

Several VOC constituents were detected in the sub-slab soil vapor samples collected at the Boiler Shop including: 1,1,1-trichloroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-methylnaphthalene, carbon tetrachloride, ethylbenzene, naphthalene, o-xylene, p&m-xylene, and toluene; however, the detected concentrations did not exceed their respective NMED or EPA VISLs with the exception of naphthalene (**Table 1**). Naphthalene was detected in four of the six sub-slab soil vapor samples collected within the Boiler Shop: SV-08-07 (89.4 micrograms per cubic meter [ $\mu$ g/m<sup>3</sup>]), SV-08-08 (4.22 J  $\mu$ g/m<sup>3</sup>), SV-08-09 (7.38 J  $\mu$ g/m<sup>3</sup>), and SV-08-10 (55.0  $\mu$ g/m<sup>3</sup>). The concentration of total naphthalenes detected at sub-slab soil vapor samples SV-08-07 and SV-08-10 exceeded the NMED VISL of 8.26  $\mu$ g/m<sup>3</sup> (**Table 1**).

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Numerous VOC constituents were detected in the sub-slab soil vapor samples collected at the Tender Repair Shop including: 1,1,1-trichloroethane, 2-methylnaphthalene, ethylbenzene, naphthalene, p&m-xylene, and toluene; however, the detected concentrations did not exceed their respective NMED or EPA VISLs with the exception of naphthalene (**Table 1**). The concentration of total naphthalenes detected at sub-slab soil vapor samples SV-08-05 (56.69  $\mu$ g/m<sup>3</sup>) and SV-08-06 (12.95  $\mu$ g/m<sup>3</sup>) exceeded the NMED VISL of 8.26  $\mu$ g/m<sup>3</sup> (**Table 1**).

Lastly, several VOC constituents were detected in the sub-slab soil vapor samples collected at the Flue Shop including: 1,1,1-trichloroethane, 1,4-dioxane, benzene, p&m-xylene, and toluene. The detected concentrations were below their respective NMED or EPA VISLs (**Table 1**).

A copy of the laboratory analytical report is included in **Appendix B.** It should be noted that the laboratory RL for EDB ( $10 \ \mu g/m^3$ ) was greater than the NMED VISL of 0.468  $\mu g/m^3$  and EPA VISL of 1.6  $\mu g/m^3$  for EDB. EDB was not identified in any of the soil gas samples above the laboratory reporting limit.

#### 3.1.1 Conceptual Site Model Update

The CSM identified that there was inadequate coverage with regard to sub-slab soil vapor data within Parcel 8. To fill this data gap, INTERA collected 10 sub-slab soil vapor samples within the Boiler Shop, Tender Repair Shop, and Flue Shop. The results from the sub-slab soil vapor sampling revealed the presence of 1,1,1-trichloroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, 1,4-dioxane, 2-methylnaphthalene, benzene, carbon tetrachloride, ethylbenzene, naphthalene, o-xylene, p&m-xylene, and toluene in sub-slab soil vapor. NMED and EPA do not have an established VISL for 1,3-dichlorobenzene. With the exception of naphthalene, the other detected sub-slab soil vapor concentrations did not exceed their respective NMED and/or EPA VISLs. Naphthalene sub-slab soil vapor detections were greater than the NMED VISL at four of the ten sampling locations indicating a potential for soil vapor intrusion within Parcel 8.

### 3.2 ACBM and LBP Sampling Results

#### 3.2.1 ACBM Sampling Results

Asbestos was identified in the Boiler Shop, Flue Shop, and Tender Repair Shop and is summarized in Table 2.



Table 2. Asbestos Sample Maryses								
Sample #	Building Name	Analyst physical description of subsample	Asbestos Visual Estimate Percent/Type					
16-179-100	Boiler Shop	Window Putty	2% Chrysotile					
16-179-101	Boiler Shop	Window Putty	2% Chrysotile					
16-179-102	Boiler Shop	Window Putty	2% Chrysotile					
16-179-106	Boiler Shop	Exterior pipe lagging	2% Chrysotile					
16-179-107	Boiler Shop	Exterior pipe lagging	2% Chrysotile					
16-179-108	Boiler Shop	Exterior pipe lagging	2% Chrysotile					
16-178-103	Flue Shop	Brown cork TSI from pipe	2% Chrysotile					
16-178-107	Flue Shop	Building seam mastic	2% Chrysotile					
16-178-108	Flue Shop	Building seam mastic	2% Chrysotile					
16-178-109	Flue Shop	Building seam mastic	2% Chrysotile					
16-178-113	Flue Shop	Window putty	2% Chrysotile					
16-178-114	Flue Shop	Window putty	2% Chrysotile					
16-178-115	Flue Shop	Window putty	2% Chrysotile					
16-180-107	Tender Repair Shop	Crane Gasket Rope	22% Chrysotile					
16-180-108	Tender Repair Shop	12x12 off white floor tile from office	2% Chrysotile					
16-180-109	Tender Repair Shop	12x12 off white floor tile from office	2% Chrysotile					
16-180-110	Tender Repair Shop	12x12 off white floor tile from office	2% Chrysotile					
16-180-117	Tender Repair Shop	White roofing material	2% Chrysotile					
16-180-118	Tender Repair Shop	White roofing material	2% Chrysotile					
16-180-119	Tender Repair Shop	White roofing material	2% Chrysotile					
16-180-124	Tender Repair Shop	Boiler pipe Flange Gasket	48% Chrysotile					

#### Table 2. Asbestos Sample Analyses

A copy of the asbestos survey report, which includes the asbestos laboratory results, is provided in **Appendix D**.

#### 3.2.2 LBP Sampling Results

LBP was identified in the Boiler Shop, Flue Shop, and Tender Repair Shop.

The lead based paint surfaces detected in the *Boiler Shop* included:

- silver paint on the metal center column,
- silver paint on the mezzanine walkway railing,
- silver paint on the stair stringer,
- silver paint on the stair tread,
- silver paint on the interior beam,
- silver paint on the interior crane support beam,

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- silver paint on the interior C-wall,
- gray paint on the interior D-wall,
- silver paint on the interior folding door frame,
- silver paint on the interior column strip D-wall,
- gray paint on the interior duct work,
- green paint on the interior beam cross brace,
- green paint on the interior column,
- green paint on the interior window frame,
- silver paint on the Tool Room 1 A-wall,
- black paint on the Tool Room 1 B, C, D-wall,
- silver paint on the Tool Room 1 and Tool Room 2 door frames,
- silver paint on the Tool Room 2 column,
- red paint on the Tool Room 2 floor stripe,
- gray paint on the exterior window frame, and,
- black paint on the exterior door frame.

The lead based paint surfaces detected in the *Flue Shop* included:

- white paint on the concrete floor,
- beige paint on the wooden door,
- black paint on the metal door, and,
- black paint on the metal door stop.

The lead based paint surfaces detected in the Tender Repair Shop included:

- black paint on the A-wall column,
- silver paint on the A-wall column,
- silver paint on window,
- silver paint on the metal door on the B-wall,
- white paint on the floor stripe,
- white paint on the small door within the rolling door,
- silver paint on the A-wall beam in the interior office,
- off-white paint on the exterior C-wall column,
- black paint on the steel door frame in the interior boiler room,
- gray paint on the metal window sill in the interior boiler room,
- black paint on the metal door in the interior boiler room, and,
- gray paint on the metal duct work in the interior boiler room.

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LBP chip analyses was conducted to verify XRF readings, and it confirmed LBP in the Boiler Shop, Flue Shop, and Tender Repair Shop. A copy of the LBP survey report, which includes the LBP chip laboratory results and XRF screening results, is provided in **Appendix D**.

#### 3.2.3 Conceptual Site Model Update

The CSM recommended that a Site inspection of all the building materials at the Site be conducted to determine if the asbestos and LBP sampling historically conducted at the Site was comprehensive and fill any data gaps as necessary. DCE reviewed the historical asbestos and LBP sampling locations and resulting data and designed their sample collection to target locations and/or buildings that had not previously been surveyed and/or confirm locations already sampled.

#### <u>Boiler Shop</u>

A previous asbestos inspection was conducted in 2005 by Terracon identified the collection of approximately 22 bulk asbestos samples from the interior and exterior of the Boiler Shop (INTERA, 2015). ACBM were identified and include the following:

- tan colored window glazing on the south side of the Boiler Shop (2% Chrysotile) and,
- beige colored window glazing had trace amounts of asbestos (<1% Chrysotile).

DCE collected 15 asbestos bulk samples in the Boiler Shop; six samples were positive for the presence of asbestos in the Boiler Shop. Details pertaining to the location of asbestos within the Boiler Shop is discussed in detail in Section 3.2.1 and in the DCE Survey Report provided in **Appendix D.** 

Previous LBP samples collected in the Boiler Shop in 2011 by Innovar Environmental, Inc. (Innovar) indicate that LBP was identified in the Boiler Shop in the silver paint located on three columns inside the building (INTERA, 2015). DCE screened over 70 paint samples in the Boiler Shop using the XRF device. In addition to identifying additional LBP, the 2016 results confirmed observations made by Innovar. Details pertaining to the locations of the LBP within the Boiler Shop is discussed in detail in Section 3.2.2 and in the DCE Survey Report provided in **Appendix D**.

#### Flue Shop

No evidence of previous asbestos inspections performed at the Flue Shop were found (INTERA, 2015). To fill in the data gap, DCE collected 22 interior and exterior asbestos bulk samples in the Flue Shop; seven samples were positive for the presence of asbestos in the Flue Shop. Details pertaining to the location of asbestos within the Flue Shop is discussed in detail in Section 3.3.1 and in the DCE Survey Report provided in **Appendix D**.

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There are no data indicated LBP samples were historically collected in the Flue Shop (INTERA, 2015). DCE screened approximately 30 samples in the Flue Shop using the XRF device. The 2016 results indicate that LBP was detected. Details pertaining to the locations of the LBP is discussed in detail in Section 3.3.2 and in the DCE Survey Report provided in **Appendix D**.

#### <u>Tender Repair Shop</u>

No evidence of previous asbestos inspections performed at the Tender Repair Shop were found (INTERA, 2015). To fill in the data gap, DCE collected approximately 25 interior and exterior asbestos bulk samples in the Tender Repair Shop; eight samples were positive for the presence of asbestos in the Tender Repair Shop. Details pertaining to the location of asbestos within the Tender Repair Shop is discussed in detail in Section 3.3.1 and in the DCE Survey Report provided in **Appendix D**.

There are no data indicated LBP samples were historically collected in the Tender Repair Shop (INTERA, 2015). To fill in the data gap, DCE screened approximately 56 samples in the Tender Repair Shop using the XRF device. The 2016 results indicate that LBP was detected. Details pertaining to the locations of the LBP is discussed in detail in Section 3.3.2 and in the DCE Survey Report provided in **Appendix D**.



### 4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the additional characterization and evaluation of all data, INTERA has compiled the following conclusions and recommendations.

#### 4.1 Conclusions

- Naphthalene concentrations in soil gas exceeded the NMED VISL of 8.26  $\mu$ g/m<sup>3</sup> at four of the 10 sub-slab soil vapor sampling locations, two within the Tender Repair Shop and two within the Boiler Shop, indicating a potential for vapor intrusion (**Table 1** and **Figure 3**).
- The laboratory RL for EDB in soil gas exceeded the corresponding NMED VISL (**Table** 1).
- Asbestos and LBP were detected in the Boiler Shop, Flue Shop, and Tender Repair Shop.

#### 4.2 Recommendations

Based on the results of the additional characterization field event for Parcel 8, INTERA makes the following recommendations:

- Soil Gas Engineering Controls: Soil gas samples collected within Parcel 8 revealed potential vapor intrusion issues within the Boiler Shop and Tender Repair Shop (naphthalene concentrations in soil gas). Even though the laboratory RL for EDB in soil gas exceeded the corresponding NMED VISL, EDB is not considered a contaminant of concern of the Site because it has not been identified above RL in either Site soil or ground water or was associated with historical Site uses. Engineering controls to prevent vapor intrusion should be evaluated and selected to eliminate this exposure pathway. These engineering controls could include a vapor intrusion membrane, passive depressurization system, active depressurization system, or some combination. INTERA recommends installing a vapor intrusion membrane in all new buildings. If the Boiler Shop, Tender Repair Shop, and/or Flue Shop are retrofitted for occupancy, a vapor intrusion membrane should be installed or a depressurization system should be evaluated to minimize the potential exposure to vapor. INTERA recommends documenting any engineering controls implemented via institutional controls.
- <u>Immobilization/Containment of Asbestos and LBP Materials</u>: The materials containing asbestos and LBP will require abatement or encapsulation before substantial renovation or demolition, if proposed, can commence. The final building renovation design should be considered and a decision will have to be made as to their final deposition. Any remaining asbestos and/or LBP left within the Boiler Shop, Tender Repair Shop, and/or



Flue Shop will need to be documented, and a management plan will need to be developed stating how these materials should be handled following renovation activities.



### 5.0 REFERENCES

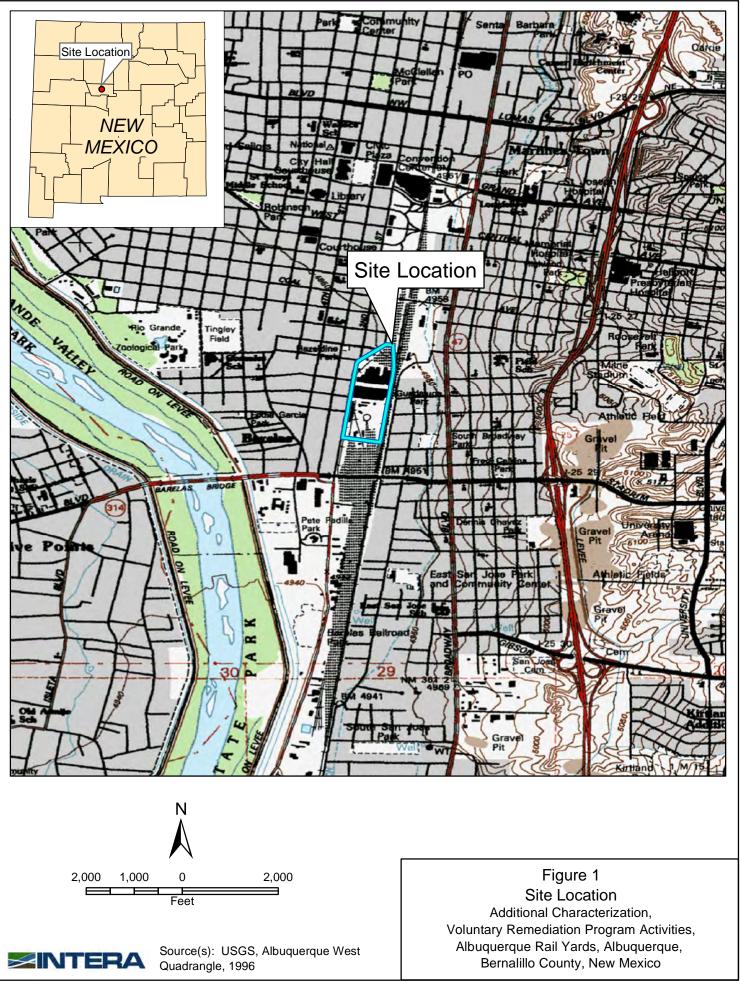
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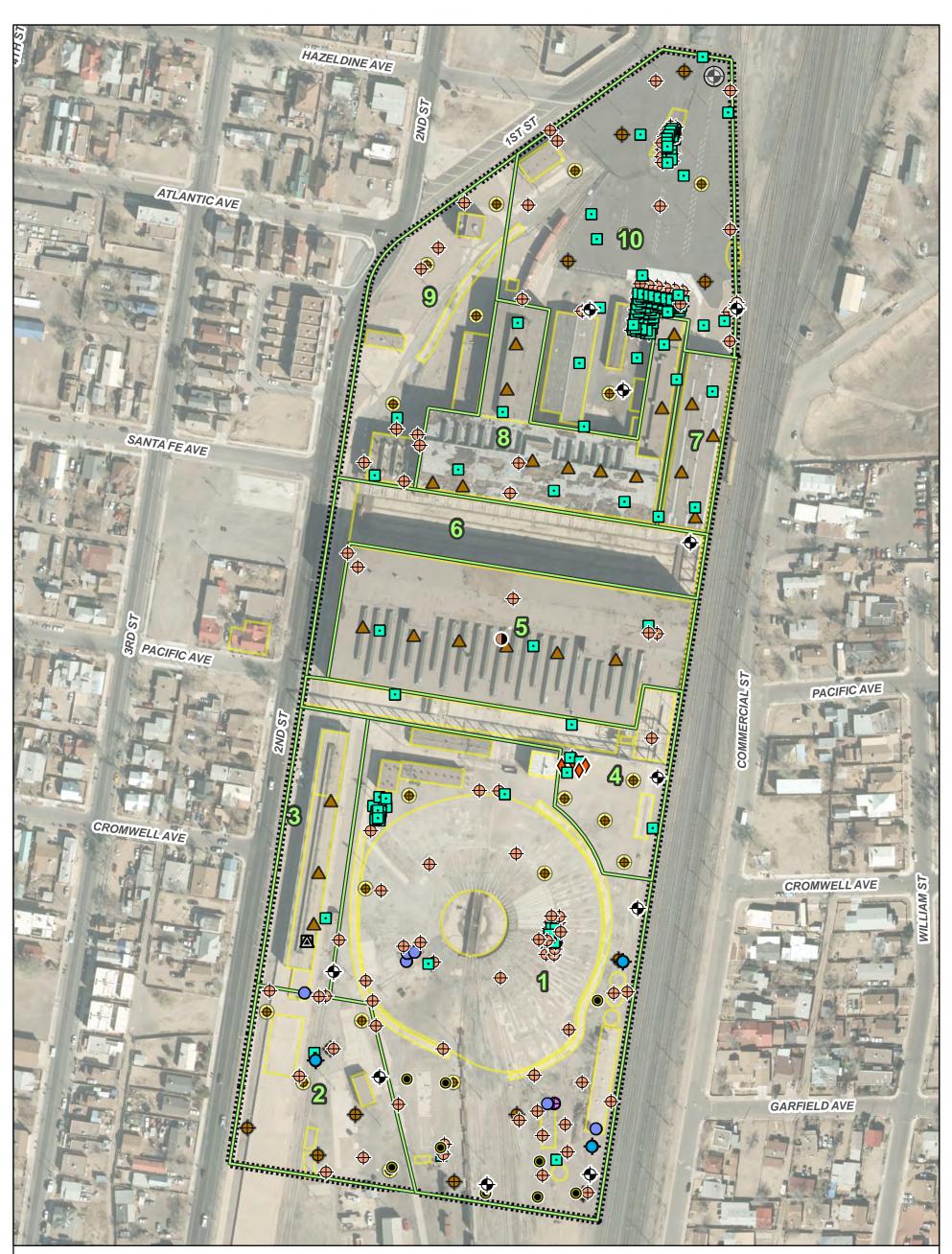
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FIGURES



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#### Legend

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0

Subslab Soil Vapor Sample (2016)

Soil Boring Sample (2016)

- Soil Boring/Soil Gas Sample (2016)
- Monitoring Well
- Soil Boring Sample
- Surface Soil Sample
- Soil Vapor Monitoring Location Excavation Soil Sample Field Screening Only Subslab Soil Sample Sump Test Pit Sample Water Supply Well Wood Floor Sample

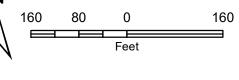
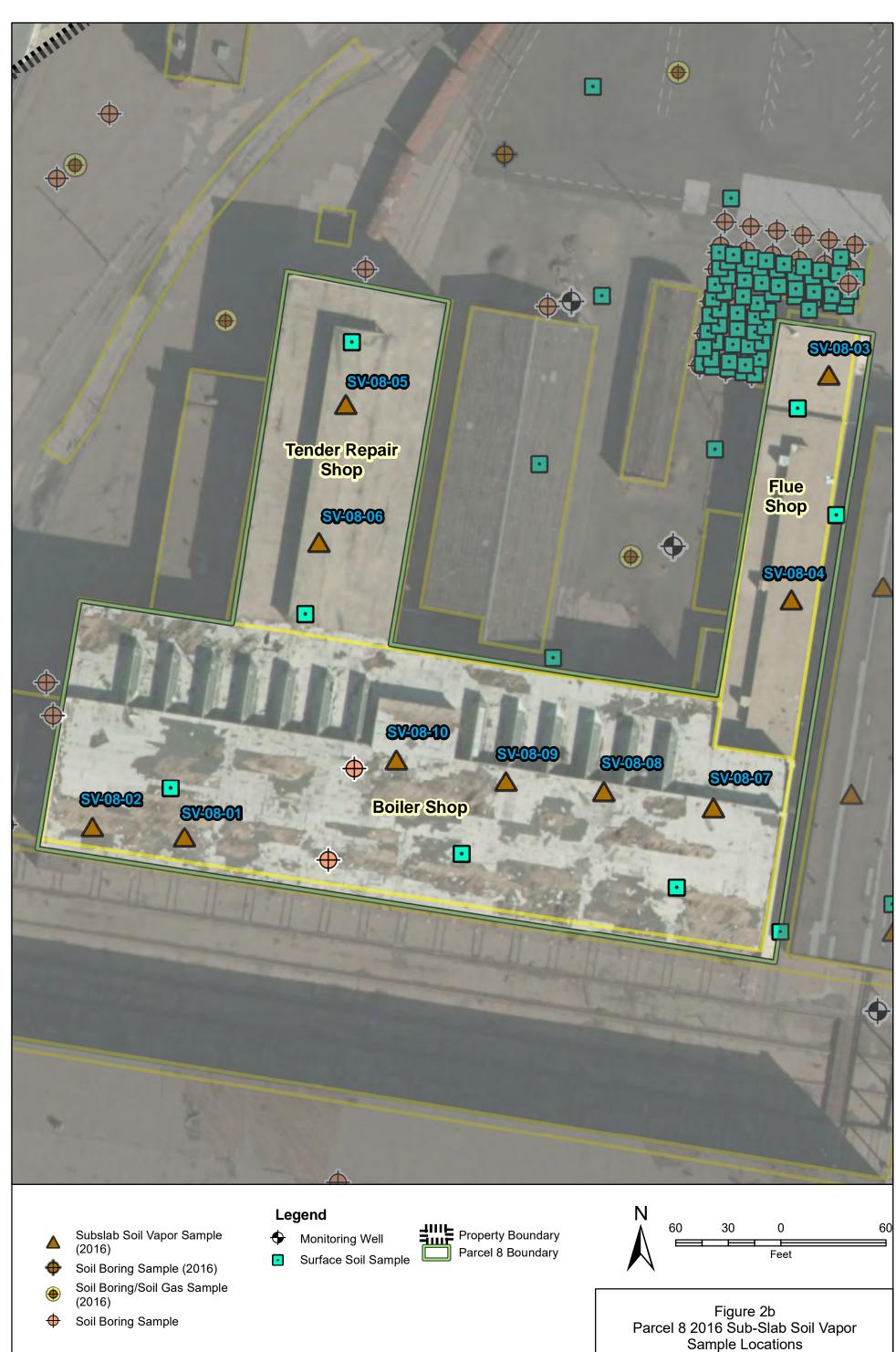


Figure 2a Site Plan, Parcels Additional Characterization, Voluntary Remediation Program Activities, Albuquerque Rail Yards, Albuquerque, Bernalillo County, New Mexico

Source(s): Aerial – BERNCO GIS website, dated 2014.

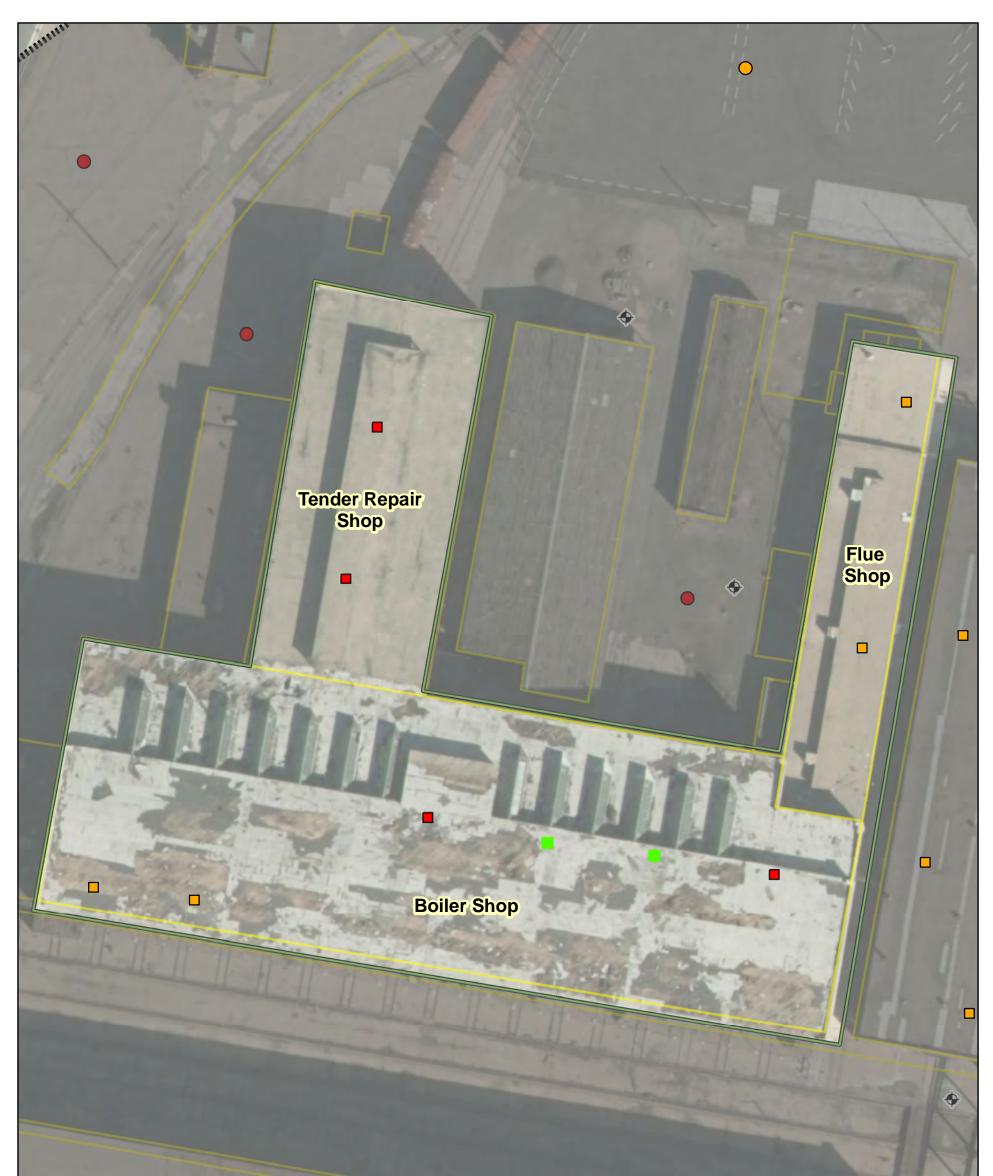
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Sample Locations Additional Characterization, Voluntary Remediation Program Activities, Albuquerque Rail Yards, Albuquerque, Bernalillo County, New Mexico

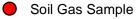
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Source(s): Aerial – BERNCO GIS website, dated 2014.





#### VISL Exceedence



**SINTERA** 

Sub-Slab Soil Vapor Sample

- Legend
- Non-Detect
- O Soil Gas Sample

Sub-Slab Soil Vapor Sample

#### Detect below VISL

Sub-Slab Soil Vapor Sample Monitoring Well





Figure 3 Figure 3 Naphthalene Sub-Slab Soil Vapor Residential VISL Exceedance Additional Characterization, Voluntary Remediation Program Activities, Albuquerque Rail Yards, Albuquerque, Bernalillo County, New Mexico

Ν

Note: VISL: Vapor Instrusion Screening Levels (NMED, 2015)

FILE: S:\ABQ\COA On-Call 2014\Task\_17\_Railyard\_VRP\Graphics\GIS\MapDocs\ContaminantMap\_AllReports\Parcel\_8\03\_Parcel8\_ResVISL\_Naphthalene.mxd 2/7/2017

TABLES

#### TABLE 1

Laboratory Analytical Results - Sub-Slab Soil Vapor

Parcel 8 Additional Site Characterization Report

City of Albuquerque Rail Yards, Albuquerque, New Mexico

			VOCs (µg/m³) <sup>1</sup>													
Soil Vapor ID	Collection Date	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,4-Dioxane	2-Methylnaphthalene	Benzene	Carbon Tetrachloride	Ethylbenzene	Naphthalene	o-Xylene	p&m-Xylene	Tetrachloroethene	Toluene	EDB
NMED	VISLs <sup>a</sup>	52,100	NE	NE	NE	NE	NE	36	46.8	112	8.26	1040	1040	417	52,100	0.468
EPA	VISL <sup>b</sup>	170,000	240	NE	NE	190	NE	120	160	370	28	3500	3500	1400	170,000	1.6
SV-08-01	11/3/2016	<10	<10	<10	130.6	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	29.05	<10
SV-08-02	11/2/2016	<10	<10	<10	113.95	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	21.02	<10
SV-08-03	10/31/2016	16.02	<10	<10	1207.58 E	12.82	<10	10.18	<10	<10	<2.5	<10	<10	<10	52.86	<10
SV-08-04	10/31/2016	13.15	<10	<10	108.32	15.33	<10	10.57	<10	<10	<2.5	<10	11.15	<10	57.07	<10
SV-08-05	11/2/2016	<10	<10	<10	904.26 E	<10	16.43	<10	<10	11.07	59.69	<10	30.27	<10	65.96	<10
SV-08-06	11/2/2016	18.38	<10	<10	974.36 E	<10	<10	<10	<10	12.02	12.95	<10	33.56	<10	70.62	<10
SV-08-07	11/3/2016	10.17	<10	<10	470.72 E	<10	21.28	<10	<10	18.63	89.4	12.78	46.51	<10	106.17	<10
SV-08-08	11/3/2016	<10	<10	<10	794.56 E	<10	<10	<10	<10	13.59	4.22 J	<10	35.28	<10	94.74	<10
SV-08-09	11/2/2016	<10	<10	<10	834.78 E	<10	<10	<10	<10	<10	7.38 J	<10	23.46	<10	45.32	<10
SV-08-10	11/2/2016	<10	46.07	17.41	626.19 E	<10	13.25	<10	11.31	10.95	55.0	<10	27.47	<10	47.67	<10

#### Notes:

Bold red text indicates values or RLs in excess of one of the VISLs

For select samples the RL did not meet NMED or EPA VISL; therefore, analytical laboratory reported down to MDL

a = New Mexico Environment Department (NMED) VISLs from Table A-3 (NMED, 2015) unless otherwise noted

b = Calculated from EPA VISL Calculator (EPA, 2016) because the VISL was not available from NMED

1 = Analyzed by EPA Method TO-17

 $\mu$ g/m<sup>3</sup> = micrograms per cubic meter

E = Measurement exceeded upper calibration range of instrument

EPA = U.S. Environmental Protection Agency

J = Estimated value below the RL

MDL = method detection limit

NE = None Established

NMED = New Mexico Environment Department RL = Reporting Limit VISL = Vapor Intrusion Screening Level VOCs = volatile organic compounds



## APPENDIX A Field Notes and Field Forms

3/2/12	10/19/2016 One Call Utility Marking MUS
Deconnect bladder pump with	1000 M. Sophy on-site in Northern Parking Lot
Liquinox and DI. Switchedaut	(all some (all's
bladder.	Weathers Sunny, 60's TGSM- Noten for traffic
· 0915 moved to MW-03	Objectix:
· Started pumping at 6942	() Mark "Sod" on vestern boundary
water sitty gt first, black	of Reilycrod: 12 + 2nd Stired
	(D) Contact One-Cell Vt. 114 Check
·Minimaldrawdownobseved	(3) Condinate Site access betren Dre Co
Pumpingat	+ COA
Collected Sample @ 1004	1015 Meet Justin D. Schnin, E.I. from
finalreadings	High Masn Consulting Group.
DH= 7.38 ) (0-VGA'S	Hie company 15 designing stum drain
Tempoc = 17.89 WIHCL	System On the Railyord
DCys/on= 567 826051	They have U.G. Uphly Mp, we can
ORPMV = -88.4 8015	contact H.M. Surveyor Onck Cala
DOMO/L= 2.12 Tagged DTWA HAW-ETT SB-09	tou nove inte.
DTW= 29.691, NOLNAPL OPTECTON	
Pulled woll and social units	115 Couplete Spot Marking " SPOT 10/19 N/S Boundar of 151/2nd Store
Pulled well and backfilled with bestonite	MIS Complete Sport Marking Sport 10/19 on N/S Boundary of 151/2nd Star of Railpard.
	CII One Cell, Ticked #16 oc 190394
Cleanup. Off-site 1020	- Une Ley, Hora . Co-1 0.01

and the second second

MJS 10/19/2016 One Call Utility Marking MUS 10/24/2016 Addin Ste Christeritation - One call will issue 10- Deg work 0850 M. Sophy on-sile to need u/ David permit expires COB Nov 4. Chalosworth Environmental (DCC) + - Must notify or cell 2 Business days Cip of Alburcergue (COA) representatives befor Nod y for Parmit Extension - Utility Locator to Complete with. reading Ashido + (end loting. by 110/21/2016 Met Wheels Misecom representations 0920 1120 Upt-k J. Trong, E. Morchile Danie Chart all 550-5066 1135 M. Sephy off. site office 243-6269 she will open close betweeks musicum dring DCls investigation Matt Butkes COA here today while Gake is wave lable Cell: (405)507-0212 Michael Nieman - DCE all (505)401-8905 Sile tour of M.H Butkes 0930 D Charlesworth would like to visit/sample sites requiry lift first. Rether then usit force 1 by porce 1. Will check if OK W. C. Marcillof J Tracy.

Add of the	y/ms Addn'l Site Charac. 10/24/16
10/24/16 Addi'l Site Charac. Nis	Summary of Pil results Sample Submitter
	CC2-11= 0-4=3402
1000 MSoph off sik 10 INTERA Aby	$\frac{130}{9-10} \frac{9-788}{9-10} \frac{5B-1(9-10)}{9-10} $
1000 M Soph off sile to TWERA Ab. office to mob for Soill Sompling	9-10 = 710,000 (91510
	58 - 2 = 0-4 = 921
1300 Lynde on-site @ wheels Nuseum	4-8.5 = 874 SB-2 (8.5-10)
and meet Visla drillers.	$\frac{1}{8.5-10} = \frac{871}{9999} = \frac{58-2(8.5-10)}{2535}$
They are getting prepped.	58-3.0-3,5 = 33.4
	3.5-4.5= 28.5
[Objectives] start desilling in parcel	4.5-7= 55.6 51600
[Objectives] start drilling in parcel for 2. Collect soil + vapor somples	8.5-10 = 479
Samples	58-4 0-4 = 51.8
1315 $(1-t)$ $(1-t)$	$\frac{4-10}{10-12} = \frac{3.7}{227}$ $\frac{58-4(10-12)}{0.1030}$
1315 Conduct H+S meeting	10-12 = 227 (01630)
1325 Walk around Parcels 1+2	12-15 = 156. /
to identify site boundary	· Soil samples will be submitted to HEAL
and proposed locations.	for NOCS (SZLEOB), PAHS (\$310) TPH (
1400 vista begins inloading powerd.	GRO, DRO MRO via 8015) + metala (antimony
	oursectic, chromium, iron, lead, many energe;
Calibrate PID Min. Rae (INTER'S) 1420 Eileen + Matt on site	traltion in (2010)
	· We used The heated head space method to
	· collect PID readings
(Parcel 1, SE corner)	- Mason jars + tools were deconned bedwin
1645 Finished collecting sample @ SR-4	borings. Geoprible exusp as well.
	1650 Met from the city on-site to lock gate
Have collected soil samples from SB-2 + SB-3 as well.	1705 INTERA + geo Viste geo officito.
	4 10/24/14

1110	MILL Cata	CR. STAR SA	na titalar kitar mu	2	All i cot ca i handi i di i
10/25/14	Maar Jour	Characteriextin	CP.	S.	Addil Site Characterization 10/25/10
Octobe	5 25,2014				albecting SV samples in Parcel 4
Lynde	Prin			Sin	is we know the biations.
Clurdy,	little rain in a	n (so's); partly s	und en		
(7 <del>v</del> s) '		. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· · · · · · · · · · · · · · · · · · ·	09.55	Begin marking boring pocations in
-			** And the second seco		Begin marking boring bocations in Parcel 4.
0720	Lynde on-site				
0725	Viste Geo on-	site		1005	Viste Geo Sets up @ SB-6 location to collect soil unpor Sample @ 5'bga.
0740	Matt Butfins	from COAT or	-site		to collect soil unpor Sample @ 5'bga.
	o unlock the	gate.			
				1025	Jim from INTERA on-site and has
rospectiv	15. Finish co	lecting sort			new PID, I finish doing the head
Sam	pus from P.	ruls 1 + 4. les from Thos			space readings and they are more
	of soll samp	les from Thos	e		accorate. SB-5 (6-10) is collected CO840
Pro.	iels too,		-		
0755 (	mart Has	reating i go on		1045	JIM offsite. Vista did not get
*	Spectives. C.L.	Pin your	<b>«</b> (		a good seal on the first boring so
0810	Nalk site to	shave have to			they are moving over to drill again to
n	ext 3 borile	spray paint The locations	ť		5' and will try to set up again.
	.)	<b>L</b>			Vista collects SV-06 (2 sorbant
825 1	Prilling boring po	158-51	•	types	). They purge 3 volument before
	located in Parcel	158-5] 1, 5E porting)		colle	ecting sompre + verity 02/coz is
	•		1	State	de, PID value is measured after
PID je	s not working p	repetly so Jin	· · · · · · · · · · · · · · · · · · ·		of and before sample collection.
was c	alled + he is	bright a new			PID = 1.1 ppm
PID to	the site. We	will start	· · · · · · · · · · · · · · · · · · ·		
			I		

phillip	Addit Site Charac. Plans	ulms	Addn'l Site Charac.	10/25/14
1145	Finisted collect su sample: More	1015	More over to set up to de	ill
	ones to collect soil sample +		borehale for SV-09	
	drill 6 10'.			-
1157	5B-6(5-10) collected		difficulties with sealing 3.	
1210	Begin drilling SB-77 (In parcel 4,	v.lv	e but made it work after -	proble
-	most western jocition)	sh	stig for awhile.	
1220	56-7 (5-10) collected -		PID = 0.0 ppm	
· ->	Soil Japor samples were collected		•	: :
	@~1335. PID = 1.9 ppm	1745	At [SB-10] to drill (Parcel	1, NE)
	50-07	1765	SB-10 (5-10) collected	
1320	Matt Sophy m-site			i 
	·	Sur	nmary of PID Results	
1345	At [SB-8] (i- Parel H, contral)		Interel pom A=Interval	soil samp
1356	Sampled 5B-8 (5-10)	ISB-5	0-4' = 2.2 Was col	lected i
	· · · · · · · · · · · · · · · · · · ·		4.5-6=0.0	1997 - 19
1400	Vist- Geo sets p to collect		6-10 = 107 +	
	SV sample. CO2 is readily	15B-6		
	zero, indicating a possible teale in		3-5=0.0	
	Whing set-up. They drill a new		5-10 0.5 #	
	boring next to the original. Orl	158-7	0-5 = 1.6	
	Coz levels jork good.		5-10=9.4 *	
	They collect [SV-08] Pin= 4.5pm	SB-8	0-5=0.0	
		-	5-10 0.1 #	
1605	Begin drilling [SB-9] (In parcel	ISB-9	0-5=0.0	 
	9, St corner)		5-10=1.2 A	
1613	5B-9 (5-10) Collected.	1		

polzelly Addril Site Chamic. 47/13	& Addn'l Site Churac. 10/20114
58-10 0-5= 0.4	October 26,2016
10 = 0.5	Sunny D's am 70's p.m.
	Lynde Prit
- Mason jours + geoprobe were deconned between sample locations.	
between sample locations.	0720 unde on-site
- Vista Geoscience were contracted to collect	UTLS GED VISTA GUSTIC and MCAN BOM
SV samples. They recorded 02/CO2/MCOH	the city. Matt opens the gits
values on tield true, 2 sorbent	0735 Conduct Ha & meeting. Go over
tubes were collected at each locations	objectives for today
1800 Matt from the COA on site to lock up site. INTERA + Vista clean up area + They secure their Geoprofes	[Objectives] Finish collecting soil samples in Parielo 1+ Z. Collect ~~ many SV samples as possible.
	0745 Calibrate PID Mini Rae w/ 100 ppm
1815 INTERA, Vista Geo, + Matt	Isabetylene. (Esp Rental)
off-sit.	0755 Start drilling @ [SB-11] (in Parcel),
125[[4	0802 Collect SB-11(0-5)
10/25/14	0845 Starting drilling @ 758-12] (Parul),
	0852 SB-12 (0-5) collected

C923 Sterting to drill @ 15B-13 (Parcel 1, East site D930 SB-13 (10-15) Collected D958 Starting to drill @ ISB-14 (Parcel 2, NE corner) 1003 SB-14 (5-18) Collected 1232 Drilling [SB-20] (Parcel 2, mid of the sorthern border) 1003 SB-14 (5-18) Collected 1232 Sampled SB-20 (3-6) 1029 Drilling [SB-15] (Parcel 2, SW of SB-14) 1035 SB-15 (3-6) collected 1035 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collection 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collection 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collection 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1055 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1056 Drilling [SB-16] (Parcel 2, ISB - 16 for soil vapor collected 1057 Discuss w/ Eileen about SV sample	trol)
0958       Starting to drill @ [SB-14]       1225       Drilling [SB-20] (Parcel 2, mid         (Parcel 2, NE corner)       of the Sorthern Dorder)         1003       SB-14 (5-18) Collected       1232       Sampled SB-20 (3-6)         1029       Deilling [SB-15] (Parcel 2, SB-16] (PiD = 2.9 pim)         1035       SB-15 (3-6) collected       1300       Vista Gec begins setting up @ SB-16] (Parcel 2, Sorbert         1035       SB-15 (3-6) collected       Callected       Callected         1055       Drilling [SB-16] (Parcel 2, Sorbert       SV-16] collected	
1003 SB-14 (5-18) Collected 1232 Sampled SB-20 (3-6) 1029 Deilling [SB-15] (Poscel 2, 1300 Vista Gec begins betting up C SW of SB-14) 1035 SB-15 (3-6) collected 1055 Drilling [SB-16] (Parcel 2, 15V-16) collected	
1003 SB-14 (5-15) Collected 1232 Sampled SB-20 (3-6) 1029 Deilling [SB-15] (Poscel 2, 1300 Vista Gec begins betting up C SW of SB-14) 1035 SB-15 (3-6) collected 1055 Drilling [SB-16] (Parcel 2, 15V-16) collected	Lle
1029 Drilling [SB-15] (Parcel 2, SW of SB-14) 1035 SB-15 (3-6) collected 1055 Drilling [SB-16] (Parcel 2, 1055 Drilling [SB-16] (Parcel 2, SW-16] collected	
1035 SB-16 for soil vapor collection 1035 SB-15 (3-6) collected 1055 Drilling / SB-16 (Parcel 2) 1055 Drilling / SB-16 (Parcel 2) SB-16 for soil vapor collection 02/Co2 Venels stable + Z sorbert 1055 Drilling / SB-16 (Parcel 2) ISV-16 collected	
1055 Drilling [SB-16] (Parcel 2, [SV-16] collected	
I lob SB-16 (5-10) collected 1215 Discuss of Fileen about SVI sample	
1135 Drilling [5B-17] (Parcel Z, them where we saw the highest PII	7
1140 SB-17(3-4) collected across the footprint of the proposed	
development in parcels 1+2. (brild	ings
1155 Drilling [SB-18] (Purcel: 2, and/or pasking structures) W & platform + south & SB-17)	
1202 Sampled SB-18 (3-6) Rarcel ] Parcel 2	
SB-4; SB-12     SB-3; SB-14       SB-10;     SB-14;       SB-11;     SB-17;	/

-1.000 ·

10/2.19/10	Addn'l Site Charac. 4	of Adden't Site Charac. 10/26/16
1400	Set up @ SB-17 to collect	1650 Moving to SB-11 to collect
	SV-17 Porced 3 volumes;	SV-11 . COLOL tevels are
	OrlCon levels good/stable; PID=	not stabilizing so we will more
	PID = 1.4 ppm (before sample collected)	over- and drill in a new location,
1440	Set up @ SB-3 to collect	- 2' onen The next together is producing stable
	15V-03 forged z volumes;	The new poctor is producing stable 02/(02 terrels. 3 rolimes projed.
-	Or/Coz levels good/stable;	PiD = 0.5 ppm
	PID = 2.1 ppm (before sample collected)	
1512 1	Heading to SB-14 to collect	1730 At 58-10 to collect
Ī	SV-14 Purged 3 volumes;	[3V-11]. Ronged over 3 volumes, 02/Coz stabilized;
	O2/CO2 levels stable;	PID = 1.0  ppm
F	PID= 3.6 ppm.	
1550 S		- The soil + soil vapor samples
	etting up @ \$58-4 to collect	have been collected from Parcels
0	5V-04 . Purged 3 volumes;- 2/CO2 (-evels stable;	1,2 + 4 successfully. Will more to the northern portion of the Site tomorrow.
	PID = 1.9 ppm	- The soil samples are on ice, labeled
•		and the methanol extraction kits have
1620 5	etting up & SB-12 to collect	been used.
	SV-12] - Pursed 3 volumes;	- Moison jars for head space readings
C	PID = 1.3 ppm	+ ceoprobe rods were deco
	······································	
л.		, , , , , , , , , , , , , , , , , , ,

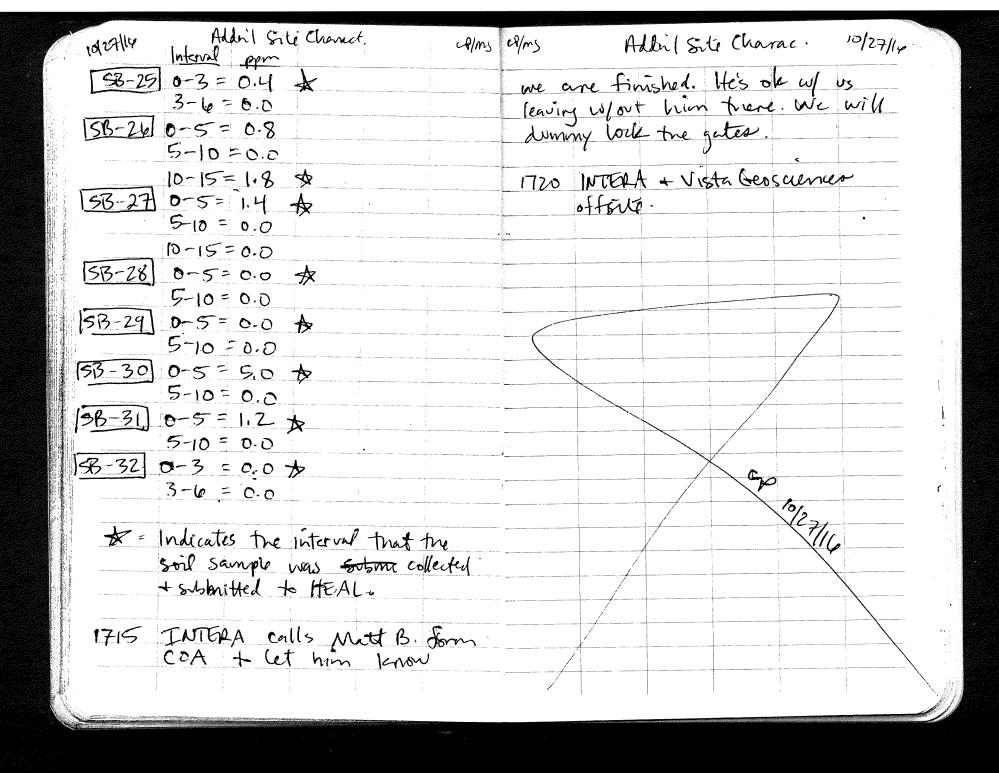
$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	V		the sout	hen north	He loc	les	
$\frac{ ntetral(ft) }{ 56-11 } = 0.1$ $\frac{ 56-11 }{ 5-10 } = 0.1$ $\frac{ 58-12 }{ 5-10 } = 0.2$ $\frac{ 58-12 }{ 5-10 } = 0.0$	V		the sout	hen month	m of the		
$\frac{5-10}{58-12} = 0.1$ $\frac{58-12}{5-10} = 0.2$ $5-10 = 0.0$	★			1825 Matt B: on-site. He lock the southern portion of the			
58-12 0-5= 0.2 5-10= 0.0			site an	d he brin	yo us to	• • • • • • • • • • • • • • • • • • •	
5-10= 0.0			the north	un portion	n of th	¢ .	
	*		site so Vista can drop				
(2-12) A-C- 12			off thei	'r Geoprel	se/fraile		
	*	1900	Gate is	locked +	I'NTEHA		
5-10= 0.4			Vista,	+ COA D	ff-site.	i	
10-15 = 3.5	*		site is	Seure		······································	
<u>(5B-14</u> 0-5= 1.3							
5 - 10 = 28.3	*						
58-15 0-3= 0.8						- 4	
3-6 = 558	*				$\overline{}$		
88-10 0-5 = 1.8			1				
5-10 = 358	★						
58-17 0-3 = 0.3							
3 - 6 = 0.9	*			$\checkmark$			
[SB-18] D-3 = 0.4				$\Delta c$			
3-6= 0.8	*						
<u> 5B-19  0-5= 0.7</u>		•			10/2		
5-10 = 44-4	*				10/20/10		
5B-20 0-3 = 0.4		<b>\</b>				<u> </u>	
3-6= 0.9	★						
t = Interval the	e soil sample submitted to ItEAL.	/					
wins collected + s	submitted to ItEAL.	J				), ),	
	New York Carlos Carl Carlos Carlos						

10/27/14	Addril Site Charace. 4/ms	ul/ms	Adden't Site Charac 19/27/14
Oct	obés 27,2014 Y, Yo's a.m + 75's p.m, breezy	0830	Besin drilling @ 153-22 (Parelo,
Lyne	h Price - Mith Sophy		SC) SB-22(3-6) collected
0725	Matt - Lynde on-site - meets	0853	
	Vista Geo + MattB. from the city. MattB opens the gates on the	0858	Begin drilling @ [SB-23] (Parcel 10) central) SB-23 (0-5) collected.
	norn state of the property for us,	·	
0740	Conduct H+ safety meeting + go ares today's objectives.		Begin drilling 180-24 (Parcel 10, SW corner) SB-24 (0-5) collected
Toble	times Collect all soil samples		
	Trova Section 9 +10 and	0137	Begin drilling <u>JSB-25</u> (Parcel 10, central N) SB-25 (0-3) collected
	collect as many soil vapor samples as we can from		
	more locations.	0957	Begin deilling 58-24 (Parcel 10,
0755	Cilibrate the Mini Race PID (Rental From ESP) w/ Isobutylene	1002	N) SB-Z10(10-15) collected
	loopn	1035	Begin drilling [5B-27] ( Parcel 10,
0180	Regin dilling at [5B-2] (Porul 10, Eside).	1038	NW) SB-27(0-5) collected
0815	Sample collected 8B-21 (0-5)	1055	
		1057	Begin drilling 58-28 [Pascel98, NE cornes) SB-28(0-5) collected

10/27/1W	Addi'l Site Characterization vojmi	ulms Adduil "Site Charac" 12276
1120	Begin doilling [SB-29 (Purcel 9,	I talked to Eileen and confirmed
	Nw)	the SV locations in Parcel 10.
1122	NN) 5B-29 (0-5) collected	we will collect mem @ =
h Marine A		
1158	Begin drilling [SB 30] (Purcel 9,	
	southern partien of parcel)	1320 The Oilcoz levels have stabilized
1146	Begin drilling [SB-30] (Parcel 9, southerni partian & parcel) SB-30 (0-5) collected.	and 7 3 volumes have been purged
		@ SV-22.
1200	Lunch break	PID = 0.9 ppm
1255	Lunch preak	
		1345 At SB-31 to collect a sril
1244	Begindoilling [SB-31] (Parcel 9)	vapor sample [SV-31] (Porcel 9)
	E side)	Or/CO2 Stabilized >3 volumes
1250	E side) SB-31 (0-5) collected	removed.
1. i ,		PID = 1,3 ppm
1300	Begin deilling @ [SB-32] (Parcel 10, Southern border) SB-32 (0-3) collected.	
	(Parcel 10, Southern barder)	14:0 At 5:13-30 to collect
1305	5B-32 (0-3) collected	SV-30
1320	Vista Geoscience begins setting up c SB-32. to collect a soil vapor sample here	Note Each soil vapor point is
	up c SB-32. to collect	[Note] Each soil vapor point is pushed to 5 bgt.
** 	a soil vapor sample here	
	SV-32	1420 CO, 102 tenels stable; 73 volumes
		1420 CO2/02 fevels stable; >3 volumes perged; PID = 1.0 ppm

n and the second s

10/27/14	Adden Site Charac.	UP/ms	~lms	Addn'l	Site Charac	10/27/4
1440		et [	Note Vi	sta Geosc	rencer gave	2 INTERA
	[5V-29] 02/Co2 leve	ls stables -	the r	emaining	sorbant the	es a
/ R	> 3 volumes purged ;				III total	left
	PID = 1.3 ppm		over	•		
1510	At SB-28 to drill.		tean Pa	ruls 9	4 10 hav	~
	SV-28]		500 10	reschilly 2	een sample	ed -
	O2/CO2 levels stable; 7	7 . 0. 1 . 0	\$2	il + soil	vapor, IN	TERA
	pursed; PID = 1.5 ppn	1 2	inii!	door off	soil sample	+ HEAL
······································	porgood in the the ppice	• •	Sa	t thing in T	he morning	+ Vista
1540	At 158-27 to drill +	rallect	( PO	chemies w	ill submit	the "
	SV-277		Cov.	bant tube	5 -	
	Oz/COz levels stable; 7	2 slome				
	porged; PID = 2.7 pp		Simma	m of 1	PID Result	3
	10)) · · · · · · · · · · · · · · · · · ·		-	taval ppm		
1605	At 58-21 to drill 4	collect 1				
	[SV-2]			-10= 0-0	·	
	O2/CO2 levels stable;	> 3 volum	ю	-15= 0.3		
	purged; PID = 1.5 ppr			-3=1.2		
		·		-6 2.1	*	
1040	At 58-23 to drill +	collect I	58-23 0	-5= 0.0	♦	
	SV-23			-10 = 0.0	•	
	Or/ CO2 levels stable;	>3	ĵo	-15=0.0	8	
·				-3 = 2.1=	▶	1
	PID = 1.6 ppm	``````````````````````````````````````		-6 = 0.0		



10/31/2016 Sub-Slad Sal Vyor 10/31/2016 Sub-SI-b Son / Var MS/CS MJICS 750 M Septy, CShed an-sile 1615 Unable to get through slab in tran sump. Meet Babriel (COA) to open N. Gaber At least 16-men thick. See photos S. Gate to callyord Contact E Marcillo to let his know situation (sabriel is pant of contact. He will Sk says to go attempt pin install a batarium niet us eng da at 0800 + 1700 to open / close g. Ws 1114 Successfully instal fired vaper pin Broke through concerte sleb into sand ell"bys Objective: Instell & V.per pins in Machine Shy Located in 312 bay tim nest in Poilor Room Callest 6 sub-stab vaper scapples from 51-8-1 Wether: Cher, 60's Clerk gues to Sco A additional upor por locations 0815 TGSM C-libral COIL COILEL 25th 02: 100 1155 Install Vapor Pin #2 0830 Mule 6x vope per locations. Phose all to confirm locations of E. Muralle The first time sup from nest side of build.) SV-8-2 0845 Set up to mot. 11 Voper pin SV-5-1 (225 Attempt to drill through slab at grand T A A Sayla Pacel Saylett Suiface, not in a tion sump. Next le entire to Tendre Ship, east dide 0930 First Location, slab too thick for of doore Conot pentule st-b, <16" thick 518" bit, 16" long-More North to Train Bay, ~ 3' deep Will test w/ small bit first Lunch

10/31/2016 Sub-Slat Soil Vaper MS/CS 10/31/2016 Sub-Slop Sal Vog-r MS/CS 1400 Set up to instill Voper pin in Northern End of Flew Shay 1320 Phone coll of Eiken - Concrete company will be on-site 1415 Instill Vg- Pin 5V-8-3 formation at 1200 5381° care but is 5rtz" of concrete stab (bgs) 22° long it Slab is deaper re Drill veper well 16 bas will order a longer bit. Mark Location of Aron on Well (See Photos) - Corn company has 1-12" con to lest stab Anickness it we can't 1430 Sotup to install repor pin in Contal - Gabriel (COA) to set is of Flew Shop SV-8-4 Wheels Museum of 0500 on Wednesday. 14-12" of slab corcete bas - Cared plan, install Zx vapes Dall Voper vell 16" bys Mark Cocction of Alien on Flow (See Photos) pms in Jender House 1330 Sot of to unstill Vopa Pin 1500 Set up to collect soil veger sample at SV-18 pt Concete slab < 16" Phone call to John Fontena (Nista Grosserences) Also, high to sque at bottom, possible deflerent confirm to pass 2 of our though 1345 Set up to install Vipus pin new to office along E. Will of Terdesship. <16" Crushe Slob surpent tuke Calibrate PID, w/ 100 ppr Isobuty lenges Cost w/ Oz 18 mc O 10, ct 452:2.52 Hs: 25pr High toyu a bottom SV0804 3CV's= 300 cm3, 1.5mm e zoucht Stabilized Pormetos: CO. Oppor LEC: Oppor H25: Oppor O2: 6. Oppor PTD= 3.2ppm, Voli 0.9c

A A

10/31/2016 Sub-Sleb Soil Vyor Sample collected at 1614 11/1/2016 Sub-Slab Sul Voper MS/FR MojCS 0720 M. Soly Filoceka to Home Depot to purchase Show Vac Dust Make Concerte Potch Materials 1630 Sol-up to collect soil voper sample at (SV-08-03) 3CVs: 301 cm<sup>3</sup> 1.5 mm purp interesting U755 M. Soh, F. Rocker on-sile North and Mail Yerd J. Jacq (INTERA) Gabe Rivere (COA) 09-51td 200ml/man St-bilized parameters: Co: open LEL: Oppn H2S: O Oppn Oz: 11.1ppm PID: 11. Vol: 1.0L Sample collected of 1652 - Valk through Blacksmith Shop to site vapor fin location Samples placed in cooles, No ice - Will set pro b) SE Cover next to Kijn 2) W. S.de next to office 1710 Phan coll to Gabriel Rivera (COA) Carlo m be will lock N Gala (15) 0815 J. Tran, G. River off-site to COA officer to collect building bluepoints to determine concrete stab thickness VII mid INTERA at 0800 time of at 1st St. G.K. 1717 M Suph C Shurt off-site -M. Suppy F. Reclar off-site to get fiel for generator 0830 M. S.p. F. Rocker on-site at le- de Shop -TGSM MM - Set up to concarche PEA 3 failed sol veper pin Kocotions.

11/1/2016	5.6-51.6 5	S. IVer	MSIAR	11/112016	Sub-SI.6 Soil Vage	MS/FR
	Peterne complete Take photos to			1020 Set up t	o instill vopo pins in otral w Stundess s	Blackmith Step al - Cheh-nourt cap.
	Trace, G. Rim CE Hein onsile			S[_b Well	5-12" thick 1 TD = 18" bas	
	CE needs to c building to cont		onerhore	1040 - J. Trag - He has	on-site at Blacksmith she marked 9 Vipor pin lace	<u>ę.</u>
1 Mar	NTERA (ookin, "p- ponerho		man and a second s		mith shep is to split distance be locations in buildings, int Encountries else, slab is	
	ince opene up a- behine sprop to			1050 J. Tray	M.S. M. F. Rocker with	Mr to
	p to P&A Z fork Photos 1. decine			F. Roec G. Riv - h	ke cuts lock in forwho is on-site installs new lock 1/	Icy on Powhaw
	- cy (INTERA) o determe slob will mark voper fi o install this AM			DEE C LB	inst-lls view lock -/ icm to criter powerhouse iP + Asbeets	to single for
- \_	1:11 mark v.p.r fr. * (net-11 this AM	lactions for M	Septy/Floor		FRocker, M. Sight r chree step. :K (px vepes pin loce	
	2			- Cor	week comp camper will	divil them
		an a	۰. 	алан алан алан алан алан алан алан алан		<u> </u>

11/1/2016 Sub-Sleb Soil Vep- ME/FR 11/1/2016 Sub-SI-6 Soil V-p-1 MS/FR 1345 Concrete Cound Compay on Silve F.Ruchan M.S.M. Net CCC at Mechane Ship holes 1 218" bit to 6" below slab 1145 J. Tray, M. Son, Filoecker with Boldsroom te mote / 4 x veper por locations Phen cell w/ E. Maulle -if re in at these Frank + I will 1200 J. Trag. M. Soly F. Reect- entry Tender have stat to local monitoring nells, - Mile 200 Veper Pir Locations. 1400 CCU Set up to dull 5/8' core on SV-15-61 Slob 6" thick 1230 Lunch SVT5-12 Slab 1240 Set-up to Ast-11 SV-07-02 SI-5 may 7" that 1430 CCC Silk op to still day heles, no can N/ Notes. EMacillo is concourd about contempted Vapour will TD = 21" by te the vell 1250 Sel-4 to install 5V-07-03 5V-05-01 512 6" thick Sleb thickness 10-12" SV-05-02 SIL Ch thick TO=21" bys 5V-05-03 Slab 6" thick 1315 Sct-4 to inst.11 SV-07-04 SV-05-04 Slab 6" thick SV-05-05 Slab 5" thick Slob thuckness 13" 5V-05-06 5126 51 thick TD= 21" bgs

\_\_\_\_\_

11/112016 Sub Slab Sol V. per	MJIFR	U/11/2016 Sub-Slab Soil Vapor MS/FK
152D IN C		My · SV-05-05 Shb=12", TU=21" bgs
1530 M. Soph takes acc oran to B	ohehorie	M. SV-05-06 SLb= 12", TD= 21" bgs
to continue Hammer Drilling \$1/8	" holes	- + + + + + + + + + + + + + + + + + + +
F. Rocche cont. dulling 1-1/2"	top hole	- Wells have steinless steel cups since
for SV-05-01-06 wells		- Wells have steinless steel cups since building may get new cool (prevent damage)
		<b>J</b>
	D= 21"bys	
	TD= 21'16-5	1715 M. Sept, F. Rocchar set up to drill 1-1/2" hole
	D= 21'1/2-3	in Britishop & sit Vapor Mis
	TD: 21"by	MS . SW-05-07 SI-b= 6" TD=21" bes
	TD= 21"by	MS . SV-05 DE SILE= 6" TD=Z1" by MI . SV-05-09 Sleb= 6" TD=71" by
	TO= 21"by,	MJ = SV-95-14 Sleb= 6" TD= Zl" bas
- Plan to let year and the	at [c.el	
- Plan to let vope pas equilibrate 24-hours bafere sampling,	un Wash	1730 G. River (COA) styps by Balesshop to let
		1730 (J. River (COA) styps by Balesshop to let is know the Sortier Railyrid Gates are
1605 M. Soph F. Roccher to Boller rown check on CCC Crew	1t	Secure inderdy door on Parhorse
check on CCC Crew		- He acks in the Lode 1st Steet (Nolth) get or ind
		-He asks us to Lock 1th Speed (North) ach mind
1620 CCC coch has deilled . 40 58" we	le in BaileShap	- Plan to next at Wheels mission tempion at 0600,
· 2x 5/8 vell	s in Tendo Hase	1745 M.Syly F- Roack- Mark
1630 CCC crew eff-site		
		- Plan to Set Uper pris in Wheels Museum in AM
1640 M. Soyly, F. Roeck Set-up to dull		-Plan to Set Uper pris in Wheels Miscon in AM sample in PM, or Z4-hours later.
11-1/2" have in wells in Tend	e Hauge	1
1640 M. Soph, F. Roeck. Set up to dull 1-1/2" hade in wells in Tend and Set V-por Pins.		

SUB-SLU Sal Val. 11/1/2016 MS/FR MS/FR 11/2/2016 Sub-Slab Soil V-pr 4x Storless Cops - Blacks Summery: 23 Vapuelins instelled Viest cool Participation 0155 M. Suph FRoecker on-site 2 Vep- Pin simpled soter Weather Sunny 50°F. Objective: ) Instill Six reper pins in the Storehour ate Will most. Il 32 V-pes fins - While Migen temarian Wheels Musicin 2) Begin sampling vapor fins, starting in Boiler House, then Blacksmith Shop · Used Ship Vac to Roman Dest Firm Vapor wells while dulling - War Dud Masker to Protect Brothing Zon 0800 G. River (COA) on-site · Cancente copeble at powery Vac + Dill of 0815 M. Sorthy FAlbecky sot-up to install 3x Nogo fins in Wheek Museum (Storchouse) Some If vepe pin silien shere is not property scaling, more store ~ 100, boken bottom of pin. It slide up, calong pin 0845 J. Tray (INTERA) conside to confirm vapo day not ill a seals property que locations - Shapic make vand to Cabel Vour Firlage. -TGSM 0900 Set-up to Install SV-03-01, In closet behind stairs Slab 6" thick TD = 21" bas Carry Starless stal cap. 6920 Set-up to inst.11 SV-03-02

11/2/2016 Sub-Stob SalVager MS/FR	11/2/2016 Sub-Slab Sul Vaper MSJFR
Cont SV-03-02 located in 1st Long Room when when solding South From allows at musicum. Located in SE Corne	1010 G. River mets M. Soph, F. Roecke at Blackgorth Shop to open lock G. Rivero efficite
Slab 7" thick TD = 21" bys - Con ~1 Stanless Steel cop	1030 - Collibrate PID & w/ 100ppm Isobitelyme Gas Collibrate CGI V/ Oz 18 ppm, LE12.57, H2525 ppm
0940 Set-y to install SV-03-03 located in 2nd Lorge carn when unlking Sotth from Wheels maxim · 1 room South from SV-03-02	· Build Volvin a Tubin & soil Semplies Filon
Locality South from SV-03-62 Locality SE Corner of Course Slob 6" thick TD= 21" bys	Vapa Pin DE CGI PID
0955 Clean-up equipment in Wheele Museum Will return tomorrow morning -t CEUT to collect vapor semples	1100 Set-up to collect sample of [EV-07-0] 3CV's= 134 (p cm <sup>3</sup>
6000 M Soph, FRock to Blacksmith shop tu collect soil vere samples	Stabilized percenturs: PID: &2.6pm, CO-0pm LEE=07., H25:0.0pm 02:11.4 Sample collected at 1135 Vol: 1.02
J. Ting cells to contin sampling A While Massim	-PID ready was high, but consistent, checked w/ readil VID, read Offm.

11/2/2012 Sub-SI-6 Sall V.101 MS/FR 11/2/2016 Sur-Slab Sal Vapor MS/FR - Phoe all to E. Muello Stabilized parameters Cont: - she says to ver centel IID from view PID: 1.7 ppm, CO: Oppm, LEC: 0%, 425: 0.0ppm un 02: 14.0 pm , V. 1, 1.0L Clibrol- centel PID-1 100ppm Isobetolyer Gas Sample collected of 1321 1200 Lunch F. Roucker off-sile to INTERA office for supplies 1330 Lock-up Blacksruth Thap 122 140 Set-up to collect sample of SV-07-02 Mive to TerderShop 3CV's: 346 cm3 Stabilized parameters 1340 Set of to collect soil upor sample of SV-U8-05 PID: 1. Loor, CO: Opp- LEL. U". H2S: O. Opp-3 V's, 346 cm3 02: 12.1 ppm", Vol: 1.0L Stabilized parameters: Sample collected at 1732 PID: 2. Cpp-, CO: Opp- LIL U., HIS: O. Opp-OZ: 13.5 pm, Vol: 1.0L F. Roucks on-site 1240 Somple Collected at 1352 Schup to collect vopor sample of SU-07-0809 BCV's: 346 cm<sup>3</sup> [SV-07-04] 1400 Set up to collect call vopa sampled SV-08-02 SV-07-041 Stabilited Permutor 20V's: 346cm PID: 1. 5ppm CO: Com LEL: Eppm: H2S: C. C ppm St-Lilized Perametersi Has 02:14.0pm, Vol. 1.02 MID: 2. Copper; Co. Open, LEL: 0°10, Hoto O. Open Simple Collected of 1259 ()2= 11. Oppor Vol. 1. OL Sample Collected et 1115 1308 Set up to collar Valor Sample of SV-07-03 3CV's: 346 cm3 1430 Set , p to Collect SV sample of SV-08-02 Stabilized Parentos:

1/2/2016 MS/FR Sub-Slab Seil V.per Sub-Sleb Soil Vapo MS/FR (1/2/2016 (SV-08-02) 3CV's: 346 cm 3 cont: Reon Pull vaper pin Stubilized Parameters: 1330 PTD: -, CO: Oppm, LFL: 01. H25: 0.0pp. Ream out 518" hale 01: 14.4pp , Vol: 1.0L Set fin Sample collected + 1450 Will let well sit for 24-hours prive to samplin - Note: Jow flow from well caused PTD pump to still. Stabilized Of readings 1600 Set up to collect SV sample of SV-08-09 inducted well was projed therefore no 3CV's: 346 m Stabilized Peronebus: PID reading taken PID: 1.41pm, CO: Oppm, LEL: 09., H2S: O. Oppm 1450 Sed-up to collect SV Sample of SV-08-01 02: 12.8 pp. , Vol. 0.8L 3CV: 346 cm3 Sample collected of 1636 Not able to get enough flan for well, PED pump st.lls out. (640 Set-up to collect SV Sample of SV-08-10) Phone coll ul E. Marcalla 3CVs: 346 cm? Plan to use sample pump to Stabilized parametos: pull from all white simply PTD, COT PID: 41.2 ppm, CO. Opm, LEL: 0%, H25: 0. Opm 02:13.7 pm . V. 1: 0.82 on side outlet volves. Sample Collected of 1656 Flow Will add sortert Q-IGI Sample tuibes PED CGE 1 Zoocni Juin Volve & Simple Secure Gole to Tender Shop & N. Railyard (710 Entine (1st Stret) Pinp edded after Jeffer Sochart When 1715 M. S. h. F. Claroker off-site purge, before Sampling

11/3/20.16 Sub-Sleb Soil Veron MS/FR Sub-Slab Soil Vapar MS/FR 113/16 - We are ~ 16.0 pp O2 on the voper wills U365 M. Septy, Florecke on-site at Wheels Mixin 5v-03-61 + SV-03-03, but Mest Dane to eccess Museum to Supe 3x Vaper fin Cocotions NZO. gpp- Oz In confect oir. The -TGSM Collibrate CCT: 425:2500, (0:10000, 02:15% Consistant decicaes indicates no Fresh-cir Intasin & samples - Objective: Continue collecting Sol Voger Set of the collect soil voor sample at SV-03-03 Samples from 12 Semanny 0850 30 V/8/ 346mL w min 45mc of a21/min · Steet in Much Misin (32) Stobilized Perentris: PID: 0.0ppm; CO: Oppm H25: 0.0ppm, Litti 0% - Mar to Machine She, (6x) Oz: 17.5 /m Vol: 0.6L 0820 Set-up to collect soil vapor sample of SV-ET-01 Super collected at 0510 3EV-s= 346 cm3 (1mm 45sec fring) at Q.ZL/min Set-up to collect soil vaper sample at SV-02-01 0910 3-CVS: 346mL os 1 hin 45 st at 0.21/min Stabilized Porometers. PID: 0.010, CO:010, LEL: 07. H2S:0.010 Stabilized Perometrys: PID: O. Oppm, CO: Oppm, LEL: 0%, H25: D. Oppm 02: 20.0pp Vol: 0.8L 02: 16. 2)ppm, V.h. 0.6L Bample Collected at 0441 Sample collected at 0926. 0925 Return to collect Sample (sol Very) at 5V-01-01 0840 Phon all to E Marcalle to reform her - Perform BCV purge at relatively higher Of recolarge in Whels - See Stephilized Poroneters on Facing Page. Morem than other Process.

11/3/16 Sub State Soil Voor M3/FR	11/3/16 Sub-Slab Soil Vapor MS/FR
1010 Meet up G. River he opens N. Goh (1st5)	10 1115 Set-up to collect soil vopor sample at SV-BB-BI - reared well yesterday to check for blockage
1015 Scout for Monitory rells, locoted: MW-Co	- se-set pin w/ new silicon slave.
$\frac{M^{-8}}{M^{-3}}$	36V's: 346mL or Imin 45sec at 0.26/min St-bilized Parametos
Could not locale MW-09 (posside buried) 1020 Set-up to Collect SV Sample at SV-08-07 BCN/4, 2011	PID: 1.5pp CO: Opp LEL: 0% HZS; 0.0pm Oz: 15.5pp Vol: 0.8L S 1 41 44 4: 1130 1131
Stabilized Poisactus:	1200 M. Sephy, F. Rucker Checking for Maniforday
50:09pm, CO: 0ppm, CEL 01. H25: 0.0pp 02: 7.8 ppm Vol: 0.6L Sample ( ducted ) 1041	- Leched: MW-02, Asee bend, PVC bend (see photos)
1045 Set-up to collect SV Sample at SV-08-08	MW-02, possibly mustocoked on map form & well riser (seme type as others) on East Sile and Building (se shall
Stubilized parameters	MW-03 MW-04
Mg FID:09 CO:00, LEL:09. Hist 0000	MW-05
PID: 0.7pp, CO: Opm, LEU09, H2S: Opp OZ: 3.6pp, Vol: 0.6L Shaph Collected of: 1105	1230 Lunch in Machine Shop 1245 Phone cell u/ E Marollo
remeated of 1103	

Resident Strander, .....

12/3/16 Sub-Ship Soil Viger MS/FR	11/3/16 Sub-Slot Soil Vapor MS/FR
cont: Phone cell of E. Mercelle M. S.phy, FRoecker to conduct Gw sampling on 9 MW's at Realyard Tomoroo-	1345 Set up to collect soil vope sample et SV-05-03 3CV's: 346mL or limin 45sec prize of 0.24m
E. Marcillo NIII colorn this V G. Rivera (COA) 1300 Sct-up to collect soil vapor sample at SV-05-0	St-bilind Perentess PID:0.7pm, CO: qr LEL: U7. Hos: Oppm
St-tolized Parenetus PID:1-lpp-, CO:Opp-, LEL: Oh H25:0.900	Smple Collected + 1410
Somple Collected + 1322	1415 Setup Jakott 12 collect Sont vapar sample at (SV-05-04) 3CV's: 346ml or Imin 45 sec prige at 0.24L/min
FRocches entry to flug & Albendon Zx Core mells divilled in Machine Shop of Concrete Mix	Prince for 3min, Voli1.02 Stabilized Parametus: PID:09 PCO:01 LEL:07. H25:0.0pp
1325 Set up to collect Spil Vapor simple at 154-05-02 3CV's: 346mL, Imin 45 sec	
Stabilited Paranchies; PID: O. gppm, CO: Dopm HZS: 0.011 (EL: 0%) Oz: O. yppm, Vol: 1.02	[435 Set up to collect Soil Vope semple at SV-05-05] 3CV's: 34 bml or Imin 45500 pulse at 0.2L/is Stabilized Parameters
Sample Collected et 1342	PID: D. que, CO: Uppn, LEL: 0%, H2S: D.Oppn Ol: D.Opp, Vol: 0.6L Sample Collected et 1442

1)/3/16 S.b. S.L S.I V.p. MS/FR	11/3/16 Sub-SJab Soil Veper MS/FR
	1530 Text to E. Moralle DTrag whinm
1450 Satury to collect soil vejor simple of sv-85-06	that Sub-Slab Sail Vaper Sangling 18 camplete
3 CV's: 346mL = Imin 45 sie prix	
Statilized Parameters:	and in work complete
PID:0.940 , CU: : 040 , LEL: 0%	M. B. thew (COA) will open goles at
Hase a opper O2: 1.84pm, 0.64 Somple Collected at 1506	1 <sup>ct</sup> SI (N. S. de) to give TNTERA access for GW Sampling.
1500 Sort out samples by parcel #	1540 M-Sophy, Elocche off-site
10 × Porcal & Boild Ship Tondo Shop, Fle-Shop SU-08-61 SV-98-06	Symment:
SV-08-07 SV-08-07	. Thatalled 23x Vapor pris to collect SUB-sie
5V-08-041 5V-08	-Collected 23× soil veper simples in 4 parcel
SV-06-05 SV-08-10 bx Porgel 5 Machine Shap	locations at the collyced-1st on facing page
SV-05-01 SV-05-05 SV-05-05	· Simple (sorbert tubes) sampled at ZOU con 3 from far 5 min (1L)
3x Pasel 3. Stochover (Wheels Mixing)	· Test for TO-17 Sulg/s
SV-03-01 5V-103-121 5 122 023	Mgl
4x Parcel 7, Blacksmith Shup SV-07-01 SV-07-03	
54-07-02 54-04	

: •

			<b>•</b> -		•
11/4/16 Gin Samplay MS/FR	11/4/16		GW S.	apling	MS/FR
		K-0	ft broch	₩ <u>+</u>	
0755 M Soph F. Rocche Un-site	WellID	DTP	DTW	DTB	Notes
0755 M Soph F. Roucky Un-site N. Gok open, pull in near site of MM	1.09 MW-09				Not located
	MW-Ø8		26.16	46.11	0839; 2, J-Plug OK
TGSM	NW-06		29.44	49.28	0832; 2", J-Plug OK
	MW-Ø7		26.74	44.85	0847; Z"; J-Plus OK
- Weether oncessity Fainy 55°F.	MW-02		19.10	41.34	1245; Z"; Ared New Jilly
- Objutne: Dear Locik & MW's	MW-@1	-	22.65	44.16	1002; 2"; J-PIU, OK
2) Gauge DTW, DTB m MW's	MW-Ø3		24.33	44.75	1008; Z", J-PI, OK
3) GN Sample for VOC'S 8260	MW-04		25.37	44.48	1015; 2", J-Plus OK
503 504.1	MW-05		26.52	46.16	1024; 2"; Needs J. Plu
0405 M. But Kus (COA) concrite.					, , , , , , , , , , , , , , , , , , ,
He will open south Gate Near Wheels m	usun 0850	· Ce-phet	ed gavains	00 1	nolls on north side
for Gus sompling.		af si	tc.	)	
		-Plan +2	collect	GW samp	les of n. side nells
0010. Filocker attempts to locale MW-00		to sta	y clear of	film ci	in
- after using metal detecture & shore			1		
· Er 20 min, NO well found	0855	Set. up	to Collec	+ GW	sample at MW-07
- will not gave / sample this well			9.2001		
- Colidia Oakton periso wate Quelly Muto species		· Stabi	lized Porch	neters:	
0830 - Begin gurging DTV /DTB using profe	in the	pH:	4.41; Ten	o: 18.6°C	; SpecCond: 829.245-cm
decontemported Solonist Oil (Water Mitor to			7.17 Vol	9.3 gal	· / /
prote + EnvisoSupply Water land Me	-	Sem	ple Collecte	ed at	0912
- Will Gazze Lells on N. Side of Sile,	· · · · · · · · · · · · · · · · · · ·	-	\ 		
then sample to get of way					
of Eilming crew.				Salah analasa da	
		an and a second seco			

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A CONTRACTOR OF A CONTRACTOR A

11/2/16 GW Songling MS/FR	11/1/16 GW Sarphy MSIFR
0920 Setup to collect GW Sample at MM-DG .3CV's: 124 gol	1200 More to South Side of silts Lunch
Vol: 11. 5g-1 Sample collected at 0947	1215 MW-002 risc pipers bent a conent skirt is atracking up
0950 Will head to south side of site to gauge MW's, spearfiely to check casing diameters. If any 4" mils,	Break off concrete around riser Remore riser. Cut PVC cosing 22") to ground level. INTERA will replace surface completion at a later dale (E. Marcinja)
1030 - Gaugin et all wells complete except MW-02. This well casing river is damaget We will return labor to be all	1245 . Set op to cotteet agarge meter kerel in MW-102 - Set up to collect GW sample at MW-02 - 3 CV's: 11.4 gel
- M. Sophy F. Rocker off-eite to get ice	- Stabilized premiters: Temp. 18.5°C, pH: 7.741, S.xe. Cond: 667.2µsen Vol: 12.0g.l Sample collected at 1510
1045 Set-up to collect GW Sample Almu-DB - 3CVS: 39.6 gal - Stab. Premeters: Temp: 18:8°C, pH: 7.17; Spec Cond. 951.9 March	1315 Set up to collect GW sample at [MW-0] - 3 CV's: 11.1 g-1 - Stabilized perametors:
Vol: 40gel Simple collected et 1145	Temp: 18.7°C, pH: 7.42; Spee. Cond. 996.0 user Vol: 11.5 -1 Sample collected at 1335

NJ&/IL GW Sampling MS/FR	11/2/16 GW Sampling MS/FR
1340 Set p to collect GW samph of MW-83 · 3CV's: 10.5g-1 · Stabilized parameters: Tamp: 15.0°C, pH: 7.31, Spr. Cord: 671.2 Min	-Notes: -Notes: MW-08 has 4" casing and well voult Mill not propuly close due to PVC casing and J-Plug. Recommend termoning PVC
1410 Set up to collect GW sample of [MW-B4]	MW-02 needs new surface completion well is curently capacid as PVC. cesing cut -1ft bas_J. Plug is toped into
- 3 CV's: 9.6 g.l - Stabilized perametos: pHt: 7.18, Temp: 18.6°C, Spee Cond. 936.5usch Vol: 105-1 Sample collected at 1427.	plen to prevent debus/weter entering well. Left Z-Parking cores asound nell for protection. MW-125 mids a J-Pluy (millsong)
1435 Set y to collect GW sample at MW-105 · 3CV's: 9, 9 g-1 · St-Liliped primities:	1515 M. Suppy, FRocelu effective. Summer: · located & of & MWS (MU-099 missing)
Timp: 10.6°C, pH: 7.05; Spie Cond. 819.5 jus-cm Voli 11.0g.) Sample collected at 1500 1510 Decon .11 (gripment.	· Grouged fluid levels / total depth in 6 wells · Sempled & wells for grandweber · 8260 (VQC's) - in filtered · 504.1 (EDB) - infiltered · Puiged wells 3x Casting Volume 9 confirmed
Place GW Samples in Coolern/Ice	Stubilizatur of Water Glie lity Perarcher beter sampling.

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MJ GW Samplay MS/FR - (mt: ·All project fluids spread on impesmeble surface to everposation MS

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PAGE: 1	OF 1	
DATE / TIME: 1	13/16	·
PROJECT: Ab	Railyerd	
JOB NO. :	,	
REC / SAMP BY:	MS/FR	

WELL/LOC. NO. :	WELL TYPE:	Monitor	Extraction	🖬 Vapor Pin	□Other
SV-Ø8-Ø1	WELL MATERIAL:	Stainless Steel	🗆 Poly / Implant	Teflon	Other

		WE	LL OR	PRT PU	RGING	& SAMF		OG			
PURGE VO Casing/Tub 1/4-inch O Other <u>6</u> , Total Lengt Number of V	ing Inner D □ 3/8-inct /9 <sup>^</sup> h of Tubing	h □1/2-ind	21"	3/4-inch <b># Vols):</b>	_	□ Landt □ Perist Ø Other	NG METH :ec :altic pump - Type: Il Depth:	ampling		C 0.z	L/min
PURGE VO	LUME CALC	ULATIO	N:			x length) Hole Volun		ge Volume	es) =	C	C or Liters
PURGE TIM	<b>ЧЕ</b> т <u>1125</u> sto	DP <u>4min</u> 1	ELAPSED	)	<b>PURGE</b> Initial <u></u>		Final <sup>O</sup> .	<u>、</u> L/pn			VOLUME Liters
FIELD PAR	AMETER M	EASURE	MENT	pp~	70	ppm	ppm	ee~			
Time	Minutes	FLOW	Vacuum	CO	LEL	HZS	02	PED			l
00:00		L/min									
0100	1.0	0.2		0	0	0.0	15.7				
0130	1.5	0.2		0	Q	0.0	15.6	-			
0200	2,0	0.2		0	0	0.0	15.5	-			
0230	2,5	0.2					-	1.5			
0300	3.0	0.2				-	-	113			
0400	4.0	0.2		_			-	1.5			
		T		-							
							I				
Observation	℩s/Note: ℷ(⁵ィℴ") <sup>2</sup> )	+(12″×	('1 <sub>0</sub> ") <sup>2</sup>	)] <sub>*</sub> 3.1	14 x 3 =		~ <sup>3</sup> = 34 min 45		'se of	0.2.L/	min
·····				SAMPI		ECTION					
SAMPLE CO	NTAINER T	PE /									
🗆 Tedlar Ba	g	🖉 Sorpti	on Tubes	5	🗆 Sumn	na Caniste	r	🗆 Septu	m Bottle		
SAMPLES					Sample S	Series:					
Sample/Loc	ation ID	Contain 1	ID	Date	Time	Depth	Volume			Commen	its
52-08-01		601649	199	11/3/11	113)	21"	1.UL				
51-08-01		HØ2336	1	11/3/16	T	21.	1.04				
		1	( <b>b</b>		1.00						
		+!	I	İ		+					
		/	<u>ا</u> ـــــا	ļ							

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PAGE:	1	OF	1	
DATE /	TIME: 🖡	1/2/16		
PROJEC	т: Ас	a Rai	yard	/
JOB NO				
REC / S	AMP BY:	FRI	MS	

### SOIL-VAPOR SAMPLING FORM

	WELL TYPE:	Monitor	Extraction	I <b>¥</b> Vapor Pin	□ Other
51-98-02	WELL MATERIAL:	🎾 Stainless Steel	🗆 Poly / Implant	Teflon	Other

	WELL	. OR PRT PL	JRGING	& SAMI	PLING L	OG			
PURGE VOLUME				PURGI	NG METH	IOD			
Casing/Tubing Inner				Land					
□ 1/4-inch □ 3/8-in Other <u>5/8</u>	ch ⊔1/2-inch	3/4-inch		Peris	taltic pump	ace la	TIN		
Total Length of Tubin	alcoring ZI	11		🛱 Othe	r-Type:	CGI /r	$_{P}$		
Number of Well Volur	9/Casing; <u></u>	 aed ( # Volc):	3	Ma	II Donth	71	1		
		geu (# vois).			in Depth:				
PURGE VOLUME CAI	LCULATION:			x length) <i>Hole Volui</i>		ge Volume	s) =	CC or Liters	
PURGE TIME			PURGE	RATE	••		ACTUAL	PURGE VOLUME	
1439 START 1444		PSED	Initial 🗕	<u>λ 2</u> L/pm	Final 🦉	2. 2_L/pm		Liters	
FIELD PARAMETER	MEASUREME	NT							
Time Minutes	FLOW Va	icuum CO	LEL	H28	07	PID			
00:00	L/min								
0.00 0.0		0	0	0.0	15.8				
8.1:00 1.0		0	0	0.0	15.8				
1:30 1.5		0	0	0.0	14.8	-			
2:00 20 2:30 2.5			0	0,0	14.5				
3100 -3.0			- v	0.0	14.4				
7.90 3.5						74			
4.0 4.0	·	·····	+			A A			
Observations/Note: $ \begin{bmatrix} (21'' \times (5/16) \\ \Rightarrow PIN Homp S $	f(12") + $(12")$ + alls out	$x(Y_8'')^2]$ after ~5	x 3,14, seconds	x3=1 of pu	21.1 in mpms	<sup>3</sup> <u>-</u> 34 346	'bml 5 cm <sup>3</sup>	= 1 pm/h 45 p 0.2 L/mm f.la	ung p
			E COLLI				****************** <u>****</u> ***		- <b>-</b>
						****			
SAMPLE CONTAINER 1		Tubes	D Sumn	na Caniste	r	🗆 Septun	n Bottle		
SAMPLES		118 march 1	Sample S	Series:					
Sample/Location ID	Contain ID	Date	Time	Depth	Volume			Comments	
SV-08-02 SV-08-02	1101399	11/2/10	1450	21"	1.00				
SV-18-12	6017790	7 4/2/16	1450	21"	1.00				
								**************************************	
			,			h			
				<b> </b>					
				<u> </u>					
			L	L	l				

\* No PID reading, flow from vopor pon too lost, caused PID pump to stall.

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PAGE:	1	OF	1			
DATE / TI	ME: /	0/31	-	′6		
PROJECT:	Aba	Raily	vl			
JOB NO. :	/	/				
REC / SAN	1P BY:	MS	ofly 1	Shur	1	
			17			

### SOIL-VAPOR SAMPLING FORM

WELL/LOC. N	10. :	WELL TY	PE:		Monitor		Extractio	n 🎵	Vapor Pin		Other	
50-08-	-03	WELL M	ATERIA	L: V	Stainless	Steel C	<sup>]</sup> Poly / Im	plant C	] Teflon		Other	
	×.	14/6		חסד הוו	DOTNO	0. CA 141		00				
PURGE VO		AAE		PRIPU	RGING							
Casing/Tub		iameter:				D Landi	NG METH	OD				
□ 1/4-inch			ch 🗆	3/4-inch				)				
XOther 5	184			-,		D Other	- Type:	PTD/C	GI			
Total Lengti	Total Length of Tubing (Casing: 18"											
Number of N	Fotal Length of Tubing/Casing: $\frac{75}{2}$ Number of Well Volumes to be Purged (# Vols): $\frac{3}{2}$ Well Depth: $\frac{8''}{2}$											
								****				
PURGE VO	LUME CALC	ULATIO	N:					ge Volum	es) =	CC	C or Liters	
				(Refer to	Tubing / I	Hole Volui	ne Table)					
PURGE TIM					PURGE	RATE			ACTUAL	PURGE	OLUME	
1645 START	1050 STO	P 5~1	LAPSED	)	Initial 🕫	د L/pm	Final _4	3.Z L/pr		1.	-	
						/ ]		, I.	•			
FIELD PAR	AMETER M	EASURE	HENT	4	Leezo	1		>				
Time	Minutes	FLOW	Vacuum	-	LEL	425	07	PID	T	ſ		
00:00		L/min	vacuum	<u> </u>		I MLS			+			
0010	i. o	0.2				1		2.7				
0130	1.5	0.7	~	-				2.9	1 1			
0200	2.0	0.2				-		3.0				
6300	3.0	0.2		0	0	0.0	139					
-0400053	3.5	0.2	-	Ο	0	0,0	11.9					
0400	4.0	0.2		0	0	0.0	11.3					
0430	4.5	0.2		0	0	0.0	h.1					
0500	5.0	0.2		0	0	0.0	11.1					
Observation	s/Note:	1-7										
18" 548"	+ 12" (x	12/x 3	14	3 =								
[18" (5%)" (514) [7.03	1 - X 3	,) <sup>-</sup>		1								
2.03	+ 0,75]	x 3.14	x 3 :	5			_	3	~ .	C	7/01/	
[1.76-	+ 0.19] x	3.14 x	3= /{	3.37 in	3 = 30	Imlor	· 301 cm	$\gamma' = 1.$	5 min pu	rge tor	S'CVS	
		0 <u></u>	W3/6103210/0/0/0010101010									
				SAMPL	E COLLE	CTION						
SAMPLE CO		DE										
			on T	_			_					
🗆 Tedlar Bag	9	🗸 Sorpti	on lube	5	u Sumn	na Caniste	r	⊔ Septi	ım Bottle			
SAMPLES					Sample S	Series:						
Sample/Loc	ation ID	Contain	٢D	Date	Time	Depth	Volume			Comment	:S	
54-08-03	********	HOIAN		10/31/16	1	18 "	1.2					
51-08-03		G0177		10/31/16		10"	/.c. /.t.		†			
						+,			<del>  </del>			
						<u> </u>			<u> </u>			
						<u> </u>			<u>├</u>			
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200 re/min > 5 min = 12 that solkent take.

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PAGE: /	OF	,		
DATE / TIME: 10	2/3//1	6		
PROJECT: A	by Raily	erd		
JOB NO. :	1 1			
REC / SAMP BY:	M Soph	1 C.	Short	
	- 7			

# SOIL-VAPOR SAMPLING FORM

WELL/LOC. N		WELL TY			Monitor		] Extractio		Vapor Pir		<sup>]</sup> Other
SV-8	= 4	WELL M	ATERIA	L: X	Stainles	s Steel 🛛	] Poly / Im	iplant 🗆	Teflon	Ľ	<sup>]</sup> Other
SV - Ø €	8-04										
-	6	WE	LL OR	PRT PU	RGING	& SAMI	PLING L	OG			
PURGE VO				******			NG METH	IOD			
	ing Inner D			<b>D</b> ( <b>1</b> in th		🗆 Landi					
$\psi$ Other <u>5</u>	□ 3/8-inch	n ⊔ 1/2-in	cn 🗆	3/4-inch			taltic pump r - Type:	0,01	1cal		
Total Longt	h of Tubing	Cociner	18"								
Number of 1	Well Volum	es to be P	urged (	# Vols);	3	We	ll Depth:	18'	~1		
						-	• •			•	
PURGE VO		CULATIO	N:	(Tubing \ (Refer to	/olume/ft <i>Tubing /</i>	x length) Hole Volur	X (# Pur ne Table)	ge Volume	es) = <u>6</u>	0 x 3 =	C op Liters 0.270 (
PURGE TIM	ЧЕ				PURGE	RATE			ACTUAL	PURGE	VOLUME
1609 STAR	т <u>1614</u> STC	OP 4.5m	ELAPSED				Final	<b>700</b> ∽L/nn			Liters
						<b>_</b> / P···	·	<b>_</b> / p//	·		Encers
FIELD PAR	AMETER M	IEASUREI	MENT								
Time	Minutes	FLOW	Vacuum	60	LEL	$H_2 S$	02	PID			<u> </u>
00:00		<b>∧</b> L/min									
1609 01:00		200		<u> </u>			-	3.3			
01:30	1.5	200						3.2			
02:00	2.0	200						3.2			
03:00	3.0	200		0	0	0.0	8.2				
()-	1 7 -	200	1	0			_		F	[	1
0330	3.5	200			1 0	1 0.0	17.9				
0330		200		0	0	0.0	7.4				
	4.0 4.5				0 0		7.0				
0400	4.0	200		0	0	0.0					
0400 0430	4.0 4.5	200		0 0	0 0	0.0 0.0	7.0 6.8				
0400 0430	4.0 4.5	200		0 0	0 0	0.0 0.0	7.0 6.8				
0400 0430	4.0 4.5	200	, , ,2,7	0 0	0 0	0.0 0.0	7.0 6.8				2
0400 0430	4.0 4.5	200		0 0	0 0	0.0 0.0	7.0 6.8		300	) cm	3 = 1.5
0400 0430	4.0 4.5	200	, }²-]	0 0	0 0	0.0 0.0	7.0 6.8		300		3 = 1.5
0400 0430	4.0 4.5	200	}²]	0 0	0 0	0.0 0.0	7.0 6.8		300 300	) cm ) mĽ	3 = ).5
0400 0430	4.0 4.5	200	, ;}2_]	3.14	0 0	0.0 0.0	7.0 6.8		Z00 300	) cm ) mĽ	3 = 1.5
0400 0430 Dbservation 18" x 5/ [18 x (5/)	4.0 4.5 ns/Note: $8^{"} + 1$ $16^{2} + 1$	200 200 2" x 1/4" 1 L x ( <u>1</u> 8	, }²-]	3.14	0	0.0 0.0	7.0 6.8		30C 300	) cm ) mĽ	3 = ).5
$\frac{0400}{0430}$ Dbservation $18'' \times 5'$ $18'' \times 5'$ $18 \times (5)$ GAMPLE CON	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{+}}{6}$ + 1 $\frac{1}{6}$ + 1 NTAINER TO	200 200 2" × 1/4" 1 2 × (1 8 (PE,	**** <b>**</b> *******	0 0 3.14 SAMPL	e colli	0.0 0.0 2 = 1 ECTION	7.0 6.8	3 =		) cm ) mL	3 = ).5
0400 0430 Dbservation 18" x 5/ [18 x (5/)	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{+}}{6}$ + 1 $\frac{1}{6}$ + 1 NTAINER TO	200 200 2" x 1/4" 1 L x ( <u>1</u> 8	**************************************	0 0 3.14 SAMPL	e colli	0.0 0.0 2 = 1 ECTION	7.0 6.8	3 =	۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	) cm ) mL	<sup>3</sup> = ).5
$\frac{0400}{0430}$ Dbservation $18'' \times 5'$ $18'' \times 5'$ $18 \times (5)$ GAMPLE CON	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{+}}{6}$ + 1 $\frac{1}{6}$ + 1 NTAINER TO	200 200 2" × 1/4" 1 2 × (1 8 (PE,	**************************************	0 0 3.14 SAMPL	e colli	D.D      D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D	7.0 6.8	3 =		) cm ) mĽ	3 = ).5
0400 0430 Deservation 18″ × 5/ 18 × 5/ 18 × 5/ 5 SAMPLE COR □ Tediar Bag SAMPLES Sample/Loc	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	$\frac{200}{200}$ $2'' \times 1/4''$ $2 \times (\frac{1}{8})$ (PE A Sorpti Contain :	on Tubes ID	O O SAMPL	⊖ → E COLLI □ Sumn Sample S Time	D.D     D.D     D.D     D.D       CTION       na Caniste       Series:       Depth	7.0 6.8 0.32	3 =	m Bottle	) cm ) mL	
0400 0430 Deservation 18" × 57 18 × 57 18 × 57 18 × 57 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	$\frac{200}{200}$ $2'' \times 1/4''$ $2 \times (\frac{1}{8})$ (PE A Sorpti Contain :	on Tubes ID	O O SAMPL	⊖ → E COLLI □ Sumn Sample S Time	D.D      D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D     D.D	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 Deservation 18" × 57 18 × 57	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time 1614	D.D     D.D     D.D     D.D       CTION       na Caniste       Series:       Depth	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 0bservation 18' × 57 18 × 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	O O SAMPL	E COLLI Sumn Sample S Time 1614	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 0bservation 18' × 57 18 × 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time 1614	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 Deservation 18" × 57 18 × 57 18 × 57 18 × 57 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time 1614	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 Deservation 18″ × 5/ 18 × 5/ 18 × 5/ 5 SAMPLE COR □ Tediar Bag SAMPLES Sample/Loc	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time 1614	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 Deservation 18" × 57 18 × 57 18 × 57 18 × 57 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time 1614	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 Deservation 18" × 57 18 × 57 18 × 57 18 × 57 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 Deservation 18" × 57 18 × 57 18 × 57 18 × 57 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		
0400 0430 0bservation 18' × 57 18 × 5	$\frac{4.0}{4.5}$ ns/Note: $\frac{78^{2}}{16} + 1$ $\frac{1}{16}^{2} + 1$ NTAINER TY	200 200 2'' × '/4' 2 × (1 8 (PE A Sorpti H O 199	on Tubes ID しらちろ	3.14 SAMPL	E COLLI Sumn Sample S Time	D.D     D.D     D.D       CTION       na Caniste       Series:       Depth       18"	7.0 6.8 0.32	3 =	m Bottle		

2002/min x 5 min = 12 through surbent tubes.

6000 Uptown Blvd, Ste. 220 Albuquerque, NM 87110 Phone: 505-246-1600 Fax: 505-246-2600

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DATE / TIME:	1/2/2	016	
PROJECT:	Aby	Railyard	
JOB NO. :		)	
REC / SAMP BY:	FRM	15	

WELL/LOC.		WELL TY	PE:		Monitor		Extraction	n .	Vapor Pin	ſ	<sup>_</sup> Other
SV-05	-Ø5	WELL M	ATERIAL:	Ð	Stainless	Steel	D Poly / Im	plant	□ Teflon	E	Other
08	**				·····			-	eta teta Sedecia del secono e la comuna seguerar		
- 0		\A/ E		וום דמנ	DCINC	9. CA	MPLING L	00			
<b>PURGE VO</b>		AAE		RIPU	KGING						
Casing/Tub		iameter:					SING METH ndtec	100			
1/4-inch	□ 3/8-inch	□ 1/2-in	ch 🗆 3	3/4-inch	Æ		ristaltic num	p _			
Dther 5	' <b>%</b> ''					⊡∕Otl	her - Type:	PIO	/CCI		
Total Lengt	h of Tubing,	/Casing:	21	5	z				-		
Number of	Well Volume	es to be P	urged (#	Vols):		. V	Vell Depth:	<u></u>	·····		
				-				-			
PURGE VO		ULATIO	-				h) <b>X</b> (# Pur <i>lume Table)</i>	ge Volur	nes) =	C	C or Liters
10			)					MIXENEO/22010/MIXENEO/2000/MIXEN			
PURGE TIN	1E		~		PURGE						VOLUME
1744 STAR	- 1351 STO	P _5	ELAPSED		Initial 0.7	L/F	om Final <u>(</u>	3.2 L/F	om	1.0	Liters
				~				******	_		
FIELD PAR	AMETER M	EASUREI	MENT	<u> </u>		- PE	$\sim$		$\rightarrow$		
Time	Minutes	FLOW	Vacuum	Co	LEL	HZS	02	PID			
00:00		L/min	ļ					<u> </u>			PROTECTION OF THE OWNER OF
0100	1.0	0.2					<u>` </u>	2.2			
0130	2.0	0.2	-					2.2			
0230	2.5	0.7		7-0	m Lo	0.0	19.2	2.0			
0300	3.0	0.2	$\sim$	0	0	0.0	14.5	-			
0330	3.5	0.2		0	0	0.0	13.9				
0400	4.0	0.Z	-	0	٥	٥,٥	13.7	-			
0430	<b>G</b> .J	0.2		0	0	0.0	13.5	<u> </u>			
Observation $\int (21" \times$	<b>好</b> -ひ hs/Note: ( <sup>5</sup> /16) <sup>2</sup> )+	( 12"x ( <sup>1</sup>	, ")`] . 3	8.1423	= 21.1	in <sup>3</sup> = .	346mL 346 cm'	= 1m.	~ 45 Fec	Purpe	a+
									071100		e L
			an a								~ ~ ~
					E COLLE						
											*******
						<b>.</b> .					
□ Tedlar Ba	9	🖉 Sorpti	on Tubes		🗆 Summ	a Canis	ster	⊔ Sept	tum Bottle		

SAMPLES	SAMPLES M Sample Series:									
Sample/Location ID	Contain ID	Date	Time	Depth	Volume	Comments				
54-95-05	60166889	HR/16	1352	21"	1.02					
5V-05-05 5V-05-05	HØ231898	MY1/2016	1352	21"	1.0C					
-08		11/2/16								
-08										

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DATE / TIM	E:	1/2/	16		
PROJECT:	AB	a Ko	Nya:	rds	
JOB NO. :			<i>,</i> .		
REC / SAMP	BY:	FR	1M	5	

WELL/LOC. N		WELL TYPE:		] Monitor		Extraction	-	Vapor Pir		Other
50-05	-96	WELL MATERIA	۱L: ۲	Stainless S	iteel 🗆	Poly / Im	plant 🗆	Teflon		Other
Ø8		WELL OR		JRGING &			DG			
PURGE VO	LUME			F	PURGIN	IG METH	OD			
Casing/Tub	-		_		□ Landte					
□ 1/4-inch	ロ 3/8-inch ニノタリ	n □1/2-inch □	3/4-inch		Perist	altic pump	DTA	111-		
V Other	18	··· 21"			≌ Other	- Type:	FJU	1601		
Number of	n of Lubing, Wall Valum,	/Casing: <u>2/<sup>11</sup></u> es to be Purged	(# \/ala).	7	14/01	l Depth:	21	1		
Number of	Weil Volum	es to be Pulged	(# <b>v</b> ois).		AAGI	i Deptii:				
PURGE VO	LUME CALC	ULATION:		Volume/ft x <i>Tubing / Ho</i>			je Volume	es) =	C	C or Liters
PURGE TIM	1E	<u> </u>		PURGE R			ay dan sala di seban yakan	ACTUAL	L PURGE	VOLUME
1405 START	г <u>1418</u> это 1410	DP <u>5</u> <sup>h</sup> elapsei	2	Initial <u>0,2</u>	_ L/pm	Final <u>Ø</u>	<u>・と</u> L/pn	1	<u> </u>	
FIELD PAR	AMETER M	EASUREMENT		·····						
Time	Minutes	FLOW Vacuun		LEL	425	02	Ptp			
00:00		L/min	ppn -		AR40407007001104		~			
0100	1.0		+				2.2			
0130	15					-	2.0			
0200	2.0 2.5				0.0	2.01	2.0	-20,1		
0300	3.0				0.0	12.8		2011		
0330	3.5		0		0.0	11.1				
0400	34.0		0		0.0	11.2			1	
0500	5.0		0		5.0	11.0	~			
<b>Observation</b> $\int 2l^{4} \times l$	ns/Note: (5/10 <sup>12</sup> ])/	(12"x (78")	²]x 3.	14×35	21,1;	n) = 3 3	46m 46cm	L <sup>3</sup> = 1 at	пт 45 - 0.2 <i>L</i> /	sec purge mm flow rak
			SAMP		TION		<u></u>			
SAMPLE CO	NTAINER T	/PE								
🗆 Tedlar Ba	g	Sorption Tube	es	🗆 Summa	Canister	-	🗆 Septu	m Bottle		
SAMPLES A		1		Sample Ser				1	I	
Sample/Loc		Contain ID	Date		Pepth	Volume			Commen	ts
SV-05-0	é	HØ23263Ø	11/2/16		21"	1.02			<u> </u>	
51-98-96		60164508	11/2/16	11415	21"	1.02				

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REC / SAMP BY:	MS/FR	

WELL/LOC. NO. :	WELL TYPE:	Monitor	Extraction	V	Vapor Pin	□Other
SV-08-07	WELL MATERIAL:	 Stainless Steel	🗆 Poly / Implant		Teflon	DOther

						& SAMP					
PURGE VO							NG MET	HOD			
	bing Inner Di			2/4		□ Landt					
	n □ 3/8-inch <b>/๏</b> "	⊔1/2-in	сn Ц	3/4-inch		□ Perist	altic pum	Pqu	0	02	Lluia
Other			D1"			AOther	r - Type:_	10 Sample	Frie	0. 2	
otal Lengt	th of Tubing/	Casing:_	<u> </u>		2				•		
lumber of	Well Volume	es to be P	urged (	# Vols):		_ We	ll Depth:	21"			
URGE VO	LUME CALC	ULATIO	N:			x length) <i>Hole Volur</i>		rge Volume	s) =	C	C or Liters
URGE TI	ME				PURGE	RATE			ACTUAL	PURGE	VOLUME
STAR	т <u>1039</u> sto	P 3~~~	ELAPSED	•	Initial _C	<u>),                                    </u>	Final	<u>0, 2</u> L/pm	I	0,6	Liters
	RAMETER M	EASURE	MENT	P1~	7.	ppr	PPr	ppm	<u></u>		
Time	Minutes	FLOW	Vacuum	T	LEL	HzS	1 OL	PIP	T	······	
00:00		L/min		<u> </u>	1	1107	1				
0100	1.0	0.2		0	0	0.0	8.5	1.0			
0130	1.5	0.7		0	0	0.0	8.4	Ù.g			
0200	2.0	0.2	-	0	0	0.0	8.1	0.9			
0230	2.5	0.2		0	0	0.0	8.0	0.9			
0300	3.0	0.2				1	7.8	0.9		·····	
								1			
bservatio	ns/Note:										
1714	(516")2) + (	121.14	,"\Z)]	-3 1/1	3- 1	11.3.	341	.1			
_ ( <i>L</i> ) x	(16))	x ( '	8 ] /]	~ 2.19	$\lambda = U$						
						Im	<sub>v</sub> 455	ic prize	+ 0.2	Llinin	<b>`</b>
								1 0			
				CAMD							

🗆 Tedlar Bag	🗠 Sorption Tub	es	🗆 Sumi	ma Caniste	er	Septum Bottl	9	
SAMPLES			Sample	Series:				
Sample/Location ID	Contain ID	Date	Time	Depth	Volume		Commer	nts
5V-ØB-Ø7 5V-ØB-07	GØ164568	11/3/16	1041	21"	1.02			
52-08-07	HØZ31896	11/3/16	1041	211	1.02			

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JOB NO. :	1	
REC / SAMP BY:	MS/ER	

# SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	Monitor	Extraction	🖉 Vapor Pin	Other
SV-08-02	WELL MATERIAL:	Stainless Steel	🗆 Poly / Implant	□ Teflon	<sup>D</sup> Other

PURGE VolUME       PURGING METHOD         Casing/Tubing Inner Diameter: $\Box$ Landtec $\Box$ Landtec $\Box$ Landtec $\Box$ Conter 5/e $\Box$ Landtec          I/4-inch       3/8-inch $\Box$ /2-inch $\exists$ /4-inch $\Box$ Landtec          I/d-inch       I/d-inch $\exists$ /2-inch $\Box$ /2-inch $\Box$ /2-inch          I/d-inch       I/2-inch $\exists$ /4-inch $\Box$ -eristatite pump $\Box$ /A (ther - Type: Southing for a f			WE	ELL OR		URGING	& SAM	PLINGL	.OG			
(Refer to Tubing / Hole Volume Table)       PURGE TIME       LOS5 START 1056     STOP $3^{m^{in}}$ ELAPSED     PURGE RATE     ACTUAL PURGE VOLUME       Initial 0.2     L/pm     Final     0.1     0.6     Liters       FIELD PARAMETER MEASUREMENT $pl^{m}$ $7_0$ $pl^{m}$ $pl^{m}$ $0.6$ Liters       FIELD PARAMETER MEASUREMENT $pl^{m}$ $7_0$ $pl^{m}$ $pl^{m}$ $0.6$ Liters       Time     Minutes     FLOW     Vacuum $2.0$ $2.4$ $H_2S$ $0_2$ $PL_D$ 0.00 $1.5$ $0.2$ $-2.6$ $0.0$ $4.3$ $0.7$ $-2.6$ $0.15$ $0.2$ $-2.6$ $0.0$ $4.3$ $0.7$ $-2.6$ $0.2$ $0.2$ $-2.6$ $0.0$ $3.6$ $0.7$ $-2.6$ $0.2.5$ $0.2$ $-2.6$ $0.0$ $3.6$ $0.7$ $-2.6$ $0.2.5$ $0.2$ $-2.6$ $0.0$ $3.6$ $0.7$ $-2.6$ $0.2.5$ $0.2$ $0.2$ $0.0$ $3.6$ $0.7$ $-2.6$ $0.2.6$ <th>Casing/Tub □ 1/4-inch ⊄ Other <u>5/</u></th> <th>Ding Inner Di</th> <th>n □1/2-in</th> <th>∧s 3∕3 11*</th> <th></th> <th></th> <th>□ Land □ Peris ॡ Othe</th> <th>tec taltic pum r - Type:_</th> <th>Samplin</th> <th></th> <th></th> <th>L /min</th>	Casing/Tub □ 1/4-inch ⊄ Other <u>5/</u>	Ding Inner Di	n □1/2-in	∧s 3∕3 11*			□ Land □ Peris ॡ Othe	tec taltic pum r - Type:_	Samplin			L /min
$\frac{1055 \text{ START } 1056 \text{ STOP } 3^{\text{min}} \text{ ELAPSED} \qquad \text{Initial } 0.2 \text{ L/pm} \qquad \text{Final } 0.2 \text{ L/pm} \qquad 0.6 \text{ Litters}}{1 \text{ Initial } 0.2 \text{ L/pm} \qquad 0.6 \text{ Litters}}$ $\frac{\text{FIELD PARAMETER MEASUREMENT}}{1 \text{ lpm} \qquad 10	PURGE VO	LUME CALC	ULATIO							es) =	C	C or Liters
Time       Minutes       FLOW       Vacuum       Co       LfL       HzS       Oz       PLD         00:00       L/min       -       -       0       0.0       PLD       -         01:00       1.0       0.7       -       0       0       0.0       4.3       0.7         01:00       1.0       0.7       -       0       0       0.0       4.3       0.7         01:00       1.5       0.7       -       0       0       0.0       4.3       0.7         01:00       1.5       0.7       -       0       0       0.0       4.3       0.7         02:00       2.0       0.7       -       0       0       0.0       3.8       0.7         02:30       2.5       0.7       -       0       0       0.0       3.4       0.7         03:00       3.0       0.2       -       0       0       0.0       3.6       0.7         Dbservations/Note:       -       -       -       -       -       -       -         [       (21"x ( <sup>6</sup> /y <sup>2</sup> ) <sup>2</sup> ) + (12"x ( <sup>1</sup> /y <sup>2</sup> ) <sup>2</sup> ] x <sup>3</sup> .14x <sup>3</sup> . 21.1 in <sup>3</sup> : 346 mL       -       -       - <t< th=""><th>1055 START</th><th>т 1<u>058</u> sto</th><th></th><th></th><th>N711212</th><th>Initial 0</th><th>.<b>೭</b>_L/pm</th><th>ı Final_</th><th><u>0.</u> L/pr</th><th></th><th></th><th></th></t<>	1055 START	т 1 <u>058</u> sto			N711212	Initial 0	. <b>೭</b> _L/pm	ı Final_	<u>0.</u> L/pr			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	FIELD PAR	AMELERM	EASURE	MENI	eem			ppm	ppm	- <u></u>		
$\frac{010}{0130}  1.5  0.7  -  0  0  0.0  4.3  0.7  -  0  0  0.0  4.0  0.6  -  -  0  0  0.0  3.8  0.7  -  0  0  0.0  3.8  0.7  -  0  0  0.0  3.8  0.7  -  0  0  0.0  3.6  0.7  -  0  0  0.0  3.6  0.7  -  0  0  0.0  3.6  0.7  -  0  0  0.0  3.6  0.7  -  0  0  0.0  3.6  0.7  -  0  0  0.0  3.6  0.7  -  0  0  0.0$		Minutes		Vacuum	८०	LEL	HUS	02	PID	-		
$\frac{0130}{0200} \begin{array}{c} 1.5 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.2 \\ 0.0$						4	_		<u> </u>	ļ		
$\frac{200}{200} \begin{array}{c} 2.0 \\ 2.0 \\ 2.5 \\ 0.2 \\ 2.5 \\ 0.7 \\ - \\ 0.0 \\ 3.6 \\ 0.2 \\ - \\ 0 \\ 0.0 \\ 3.6 \\ 0.7 \\ - \\ 0.0 \\ 3.6 \\ 0.7 \\ - \\ 0.7 \\ - \\ 0.0 \\ 0.0 \\ 3.6 \\ 0.7 \\ - \\$												
$\frac{2230}{0300} = \frac{2.5}{3.0} = \frac{2}{0.2} = \frac{2}{0} = $												
$\frac{1}{0500} + \frac{1}{3.0} + \frac{1}{0.2} + \frac{1}{0}			1	ļ								
Deservations/Note: $\left[ (21''_{x} (s_{10}'')^{2}) \right]_{x}^{3} . 14_{x}^{3} \cdot 21.1 \text{ in}^{3} \cdot 346_{mL} \\ \lim hard 45_{xc} \beta u g t ef 0.2L/min \\ \text{SAMPLE COLLECTION}$												
$\left[ (21''_{x} (s_{10''})^{2}) \right]_{x^{3}} 14_{x^{3}} 21.1 \text{ in}^{3} 346 \text{ mL} \right]$ $\lim_{m \to \infty} 45 \text{ sc}  p \text{ ugr} \neq 0.2 \text{ L/min}$ $SAMPLE \text{ COLLECTION}$ $SAMPLE CONTAINER TYPE$	0300	3.0	0.2		0	0	0.0	3.6	0.7			
SAMPLE CONTAINER TYPE			ل (۱۲″× ( <sup>۱</sup>	ل نو~) <sup>2</sup> )] ×	3 <u>.</u> 14×3				d 02	L/min		
					SAMP	LE COLL	ECTION				****	
			_	ion Tubes	;	Sum	ma Caniste	er	🗆 Septı	ım Bottle		

SAMPLES Sample Series: Contain ID Sample/Location ID Date Time Depth Volume Comments 50-08708 40234589 113111 1105 21' ۱.۵۲ 5-08-08 11/3/16 1105 1101002 21" 1.02

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REC / SAMP BY:	MS	(FR

# SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	Monitor	Extraction	🗹 Vapor Pin	□Other
SV-08-09	WELL MATERIAL:	Stainless Steel	🗆 Poly / Implant	□ Teflon	Other

WELL OR PRT PURGING & SAMPLING LOG											
□ 1/4-inch	ing Inner D □ 3/8-inch	□ □ 1/2-in	11.1			□ Land □ Peris √ Othe	taltic pum r - Type:_			Sande 1	Nmp C 0.2L/min
PURGE VO	PURGE VOLUME CALCULATION:       (Tubing Volume/ft x length) X (# Purge Volumes) = CC or Liters         (Refer to Tubing / Hole Volume Table)										
PURGE TIN	<b>1E</b> Γ <u>1629</u> STO	P 4mm	ELAPSED		PURGE Initial _0	RATE .2_L/pm	ı Final <u>'</u>	۵. <b>೭</b> L/pr	ACTUA	L PURGE O、ຮ	VOLUME Liters
FIELD PAR	AMETER M	EASURE	MENT								
<b>Time</b> 00:00	Minutes	FLOW	Vacuum	02	LEL	Has	Or	PT D			
01.00	1.0	L/min 0.2		r-70	ort	0.0	13.5	1.6		+	
0,30	1.5	0.2		5	0	0.0	13.1	1.5			
GIUN	2.0	0.2		0	0	0,0	12.9	1.6			
0230	2.5	0.2		0	0	0.0	12,9	1.5			
0300	3.0	0.2		0	U	0,0	12.8	1.5			
W30330	5.5 m 4.0	<u> </u>									
OUUD	4.0 50 M	<b> </b>					12.8	1.9			
~> 0500		L	l			1			1	L	
Observations/Note: $\left[ (21'' \times (5''_{6})^{2}) + (12''_{\times} (1'_{6}'')^{2} \right] \times 3.14 \times 3 = 21.1 \text{ in}^{3} = 346\text{ mL} = 1 \text{ min } 45\text{ sec} \text{ purge}$ at rate of 0.2 L/n in											

SAMPLE COLLECTION

SAMPLE CONTAINER TYPE										
🗆 Tedlar Bag		Sorption Tubes			🗆 Summa Canister			Septum Bottle		
SAMPLES					Sample S	Series:				
Sample/Location ID		Contain	ID	Date	Time Depth Volume		Volume		Commer	nts
51-08-09		HØ2349	44	112/2016	1636	21"	4.02			
5V-08-09	M	110/0001		11/2/201		21"	1.02			
		1100861								

6000 Uptown Blvd, Ste. 220 Albuquerque, NM 87110 Phone: 505-246-1600 Fax: 505-246-2600

page: 1	OF,	1		
DATE / TIME:	11/2	14		
PROJECT:	AND	Kai bra	rd	
JOB NO. :	•	,	,	
REC / SAMP B	Y: FR	IMS		

### SOIL-VAPOR SAMPLING FORM

WELL/LOC. NO. :	WELL TYPE:	Monitor	Extraction	🗷 Vapor Pin	Other
SV-108-10	WELL MATERIAL:	🖗 Stainless Steel	🗆 Poly / Implant	Teflon	Other

WELL OR PRT PURGING & SAMPLING LOG											
□ 1/4-inch	LUME bing Inner Di 3/8-inch	🗆 1/2-in	ch □ 21"	3/4-inch	1	PURGIN	ec	iod Sonple	pump	, C 0. 7	L/min
Number of	Well Volume	es to be P	urged (	# Vols):	_3	_ Wel	ll Depth:	_21	'(	-	
	LUME CALC	ULATIO	N:			x length) Hole Volun		ge Volume	es) =	C	C or Liters
PURGE TIN	<b>ие</b> т <u>1650</u> sto	Р	ELAPSED		PURGE	RATE 2,2 L/pm	Final _	<i>0.2</i> L/pm		PURGE	VOLUME Liters
FIELD PAR	AMETER M	EASURE	MENT								
<b>Time</b> 00:00	Minutes	FLOW L/min	Vacuum	6	LEL	4285	02	PJ.D			
1:30				$\mathcal{O}$	0	8.00	14.1	4.0 4.1			
2:00 2:30				Ö	0	0.0	13.8	4.1			
3:00				0	0	0.0	13.7	4.2			
Observation	ns/Note: m ( <sup>(</sup> ) <sup>2</sup> ))	\$ ′+(12"∞(	('6°) <sup>2</sup> )	] <sub>2</sub> ,3,14	x3= 21	( in <sup>3</sup> = 7	346 cm" = 1	s= 346, min 45	i xe po	igent i 2C/mi	

#### SAMPLE COLLECTION

SAMPLE CO	SAMPLE CONTAINER TYPE										
🗆 Tedlar Bag		Sorption Tubes		S	🗆 Summa Canister			Septum Bottle			
SAMPLES					Sample	Series:					
Sample/Loc	ation ID	Contain ID		Date	Time Depth Volume		Volume		Commen	Comments	
54-08-10	ر س	SEGOI	7969	11/2/16	1656	21"	1.00				
5V-08-10 5V-08-10		1049	357	11/2/16	1656	21"	1.0L				
						-					

# **APPENDIX B**

Laboratory Analytical Report and Maps for Soil Vapor



The Leaders in Soil Gas Surveys and Vapor Intrusion Monitoring

**Soil-Gas Samples -- Analytical Report** 

Client: Vista GeoScience 130 Capital Drive, Suite C Golden, CO 80401 Attn: Mr. Mike Martin

#### Date: December 12, 2016 Beacon Project No. 3588 Rev1

Project Reference:	Albuquerque Railyards, Albuquerque, NM			
Sampling Date:	October 25 through November 3, 2016			
Samples Received:	November 4 and 8, 2016			
Analyses Completed:	November 10, 2016			

Results for the following samples are included in this data package:

Sample ID	Matrix	Analysis
SV-03 A (HO234823)	Air	TO-17
SV-04 A (GO119804)	Air	TO-17
SV-06 A (HO234809)	Air	TO-17
SV-07 A (HO199678)	Air	TO-17
SV-08 A (1049238)	Air	TO-17
SV-09 A (GO177458)	Air	TO-17
SV-10 A (GO177407)	Air	TO-17
SV-11 A (GO164559)	Air	TO-17
SV-12 A (HO200253)	Air	TO-17
SV-14 A (GO115947)	Air	TO-17
SV-16 A (HO199673)	Air	TO-17
SV-17 A (HO232690)	Air	TO-17
SV-21 A (HO199664)	Air	TO-17
SV-23 A (HO200288)	Air	TO-17
SV-27 A (1049249)	Air	TO-17
SV-28 A (1100863)	Air	TO-17
SV-29 A (HO200227)	Air	TO-17
SV-30 A (GO167057)	Air	TO-17
SV-31 A (HO200236)	Air	TO-17
SV-32 A (GO164954)	Air	TO-17
SV-03-01 (HO234875)	Soil Gas	TO-17
SV-03-02 (GO178581)	Soil Gas	TO-17
SV-03-03 (HO234580)	Soil Gas	TO-17
SV-05-01 (1100817)	Soil Gas	TO-17
SV-05-02 (1049459)	Soil Gas	TO-17
SV-05-03 (1049520)	Soil Gas	TO-17
SV-05-04 (HO231898)	Soil Gas	TO-17
SV-05-05 (GO177980)	Soil Gas	TO-17
SV-05-06 (1101163)	Soil Gas	TO-17
SV-07-01 (HO238242)	Soil Gas	TO-17
SV-07-02 (HO234516)	Soil Gas	TO-17
SV-07-03 (GO115955)	Soil Gas	TO-17

Sample ID	Matrix	Analysis
SV-07-04 (GO115976)	Soil Gas	TO-17
SV-08-01 (GO164999)	Soil Gas	TO-17
SV-08-02 (1101399)	Soil Gas	TO-17
SV-08-03 (HO199622)	Soil Gas	TO-17
SV-08-04 (HO199658)	Soil Gas	TO-17
SV-08-05 (GO166889)	Soil Gas	TO-17
SV-08-06 (HO232630)	Soil Gas	TO-17
SV-08-07 (GO164568)	Soil Gas	TO-17
SV-08-08 (HO234589)	Soil Gas	TO-17
SV-08-09 (HO234844)	Soil Gas	TO-17
SV-08-10 (GO177969)	Soil Gas	TO-17

#### **Sample Collection**

Beacon Environmental provided Vista GeoScience with thermally conditioned multi-bed stainless steel tubes to target a custom list of analytes. Soil gas was drawn through each tube for five (5) minutes with a flowrate of 200 mL/min and the resulting mass of target analytes captured on each sampler was reported as a concentration.

#### U.S. EPA Method TO-17

All samples were analyzed for a custom target compound list following U.S. EPA Method TO-17. The analytical results are reported in **Table 1**, with results reported in  $\mu g/m^3$  and pppv based on the measured mass and volume of gas sampled (one liter).

#### **Reporting Limits (RLs) for EPA Method TO-17**

The lowest point in the calibration curve and the limit of quantitation (LOQ) is 10 nanograms (ng), which is the RL; however, when reporting concentration data in Table 1, the values are provided in micrograms per meter cubed ( $\mu$ g/m<sup>3</sup>) and ppbv. The RLs represent a baseline above which results exceed laboratory-determined limits of precision and accuracy . For 1,1,2,2-Tetrachloroethane; 1,2,3-Trichloropropane; and Naphthalene, estimated measurements below the LOQ but above the detection limit (DL) of 2.5 ng are reported to meet project reporting ng limit require ments. Furthermore, per Vista GeoScience's request, samples were reviewed for measurements of 1,1,2-Trichloroethane that are above 2.0 ng to meet project reporting requirements. Non-detects of this co mpound above 2.0 ng are reported with high confidence. All reported measurements below the LOQ are estimates and are qualified with a J flag.

#### **Calibration Verification**

The initial laboratory control sample (LCS) also serves as the calibration verification and values for the analytes were all within  $\pm 30\%$  of the true values as defined by the initial five-point calibration and m et the requirements specified in Beacon Environmental's Quality Manual. Both the LCS and the laboratory control duplicate (LCSD) are spiked a t 50 ng and percentage of recovery is calculated and reported. Acceptance criteria for surrogate and analyte recoveries are 70 to 130 percent; all surrogates a nd analytes were within the acceptance criteria.

#### **Internal Standards and Surrogates**

Internal standards and su rrogates are spiked on each field and QC sample at 100 ng and 50 ng, respectively, and the percentage of recovery is calculated. Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates were within the acceptance criteria.

#### **Blank Contamination**

No targeted compounds above the lim it of detection (LOD) for each compound were observed in the Laboratory Method Blanks (LB\_161108a and LB\_161109a). For comparison to field sample results, one liter was used as the volume to calculate the LOQs for the blanks.

#### Discussion

Forty (40) s orbent tubes were r eceived on November 4, 2016, and forty -six (46) sorbent tubes were received on November 8, 2016. All samples were collected at each location following U.S. EPA Method TO-17; at the request of the client, only one (1) sample from each location was reported. Sa mpling start and stop times, as well as flowrates, can be found in the Chain of Custody (**Attachment 1**).

#### Demonstrated Linear Range of the GC-MS Instrumentation (EPA Method TO-17)

An initial five-point calibration is performed on the instrumentation from 10 to 200 ng per analyte.

#### Attachments:

-1- Chain of Custody

ALL DATA MEET REQUIREMENTS AS SPECIFIE D IN THE BEACON ENVIRONMENTAL SERVICES, INC. QUALITY MANUAL AND THE RESULTS RELATE ONLY TO THE SAMPLES REPORTED. BEACON ENVIRONMENTAL SERVICES IS ACCREDITED TO ISO/IEC 17025:2005, AND THE WORK PERFORMED WAS IN ACCORDANCE WITH ISO/IEC 17025 REQUIREMENTS, WITH THE EXCEPTION WITH THE EXCEPTION THAT SAMPLES WERE ANALYZED WITHIN A 24-HOUR TUNE WINDOW AND 2-METHYLNAPHTHALENE IS NOT INCLUDED IN BEAC ON'S SCOPE OF ACCREDITATION. THIS REPORT SHALL NOT BE REPRODUC ED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY. RELEASE OF THE DATA HAS BEEN AUTHORIZED BY THE L ABORATORY DIRECTOR OR HIS SIGNEE, AS VERIFIED BY THE FOLLOWING SIGNATURES:

Steven (. Thornley

Steven C. Thornley Laboratory Director

Quality

Date: December 12, 2016

ti J. Riggs Manager

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110802	
Beacon Sample ID:	LCS_161108a	
Client ID/Sampling Location:		
Date Time Collected:		
Matrix:		
Dilution Factor:	1.0	
Sample Volume in Liters:	1.00	
Date Received:		
Analysis Date:	11/8/2016	
Analysis Time:	10:30:00 AM	
Beacon Job Number:		
	Results	Units

Beacon Job Number.				
COMPOUNDS	Results	Units	Completed	Limits
COMPOUNDS	200/	A/255	11/0/14/2 10 2 2	00.100
Vinyl Chloride	82%	%REC	11/8/16 10:30	80-120
1,1-Dichloroethene	100%	%REC	11/8/16 10:30	80-120
1,1,2-Trichlorotrifluoroethane (Fr.113)	86%	%REC	11/8/16 10:30	80-120
trans-1,2-Dichloroethene	103%	%REC	11/8/16 10:30	80-120
Methyl-t-butyl ether	94%	%REC	11/8/16 10:30	80-120
1,1-Dichloroethane	100%	%REC	11/8/16 10:30	80-120
cis-1,2-Dichloroethene	102%	%REC	11/8/16 10:30	80-120
Chloroform	101%	%REC	11/8/16 10:30	80-120
1,2-Dichloroethane	98%	%REC	11/8/16 10:30	80-120
1,1,1-Trichloroethane	96%	%REC	11/8/16 10:30	80-120
Carbon Tetrachloride	96%	%REC	11/8/16 10:30	80-120
Benzene	100%	%REC	11/8/16 10:30	80-120
Trichloroethene	108%	%REC	11/8/16 10:30	80-120
1,4-Dioxane	110%	%REC	11/8/16 10:30	80-120
1,1,2-Trichloroethane	110%	%REC	11/8/16 10:30	80-120
Toluene	118%	%REC	11/8/16 10:30	80-120
1,2-Dibromoethane (EDB)	110%	%REC	11/8/16 10:30	80-120
Tetrachloroethene	94%	%REC	11/8/16 10:30	80-120
1,1,1,2-Tetrachloroethane	103%	%REC	11/8/16 10:30	80-120
Chlorobenzene	102%	%REC	11/8/16 10:30	80-120
Ethylbenzene	106%	%REC	11/8/16 10:30	80-120
p & m-Xylene	108%	%REC	11/8/16 10:30	80-120
1,1,2,2-Tetrachloroethane	99%	%REC	11/8/16 10:30	80-120
o-Xylene	101%	%REC	11/8/16 10:30	80-120
1,2,3-Trichloropropane	97%	%REC	11/8/16 10:30	80-120
Isopropylbenzene	101%	%REC	11/8/16 10:30	80-120
1,3,5-Trimethylbenzene	110%	%REC	11/8/16 10:30	80-120
1,2,4-Trimethylbenzene	102%	%REC	11/8/16 10:30	80-120
1,3-Dichlorobenzene	103%	%REC	11/8/16 10:30	80-120
1,4-Dichlorobenzene	103%	%REC	11/8/16 10:30	80-120
1,2-Dichlorobenzene	103%	%REC	11/8/16 10:30	80-120
1,2,4-Trichlorobenzene	111%	%REC	11/8/16 10:30	80-120
Naphthalene	107%	%REC	11/8/16 10:30	80-120
1,2,3-Trichlorobenzene	104%	%REC	11/8/16 10:30	80-120
2-Methylnaphthalene	101/0	%REC	11/8/16 10:30	80-120
	102/0	JUILL	11/0/10 10.50	00-120
SURROGATES	Percent Recovery	Limits	Completed	Lab File ID
1,2-DCA-d4	104	70-130	11/8/16 10:30	A16110802
Toluene-d8	104	70-130	11/8/16 10:30	A16110802
Bromofluorobenzene	105	70-130	11/8/16 10:30	A16110802
Diomonuoloociizene	107	/0-150	11/0/10 10.30	/10110802

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110803
Beacon Sample ID:	LB_161108a
Client ID/Sampling Location:	
Date Time Collected:	
Matrix:	
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	
Analysis Date:	11/8/2016
Analysis Time:	10:53:00 AM
Beacon Job Number:	
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 10:53
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 10:53
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 10:53
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 10:53
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 10:53
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 10:53
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 10:53
Chloroform	U	10.00	U	2.05	11/8/16 10:53
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 10:53
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 10:53
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 10:53
Benzene	U	10.00	U	3.13	11/8/16 10:53
Trichloroethene	U	10.00	U	1.86	11/8/16 10:53
1,4-Dioxane	U	10.00	U	2.77	11/8/16 10:53
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 10:53
Toluene	U	10.00	U	2.65	11/8/16 10:53
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 10:53
Tetrachloroethene	U	10.00	U	1.47	11/8/16 10:53
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 10:53
Chlorobenzene	U	10.00	U	2.17	11/8/16 10:53
Ethylbenzene	U	10.00	U	2.30	11/8/16 10:53
p & m-Xylene	U	10.00	U	2.30	11/8/16 10:53
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 10:53
o-Xylene	U	10.00	U	2.30	11/8/16 10:53
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 10:53
Isopropylbenzene	U	10.00	U	2.03	11/8/16 10:53
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 10:53
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 10:53
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 10:53
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 10:53
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 10:53
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 10:53
Naphthalene	U	10.00	U	1.91	11/8/16 10:53
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 10:53
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 10:53
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	102	70-130	A16110803		11/8/16 10:53
Toluene-d8	107	70-130	A16110803		11/8/16 10:53
Bromofluorobenzene	102	70-130	A16110803		11/8/16 10:53

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110804	
Beacon Sample ID:	LCSD_161108a	
Client ID/Sampling Location:		
Date Time Collected:		
Matrix:		
Dilution Factor:	1.0	
Sample Volume in Liters:	1.00	
Date Received:		
Analysis Date:	11/8/2016	
Analysis Time:	11:16:00 AM	
Beacon Job Number:		
	Results	Units

Beacon Job Number.	D 1	TT *-	0 1 1	
COMPOUNDS	Results	Units	Completed	Limits
COMPOUNDS Vinyl Chloride	80%	%REC	11/8/16 11:16	70-130
	80% 87%			
1,1-Dichloroethene		%REC	11/8/16 11:16	70-130
1,1,2-Trichlorotrifluoroethane (Fr.113)	80%	%REC	11/8/16 11:16	70-130
trans-1,2-Dichloroethene	101%	%REC	11/8/16 11:16	70-130
Methyl-t-butyl ether	84%	%REC	11/8/16 11:16	70-130
1,1-Dichloroethane	104%	%REC	11/8/16 11:16	70-130
cis-1,2-Dichloroethene	104%	%REC	11/8/16 11:16	70-130
Chloroform	103%	%REC	11/8/16 11:16	70-130
1,2-Dichloroethane	98%	%REC	11/8/16 11:16	70-130
1,1,1-Trichloroethane	88%	%REC	11/8/16 11:16	70-130
Carbon Tetrachloride	88%	%REC	11/8/16 11:16	70-130
Benzene	100%	%REC	11/8/16 11:16	70-130
Trichloroethene	106%	%REC	11/8/16 11:16	70-130
1,4-Dioxane	108%	%REC	11/8/16 11:16	70-130
1,1,2-Trichloroethane	105%	%REC	11/8/16 11:16	70-130
Toluene	111%	%REC	11/8/16 11:16	70-130
1,2-Dibromoethane (EDB)	112%	%REC	11/8/16 11:16	70-130
Tetrachloroethene	95%	%REC	11/8/16 11:16	70-130
1,1,1,2-Tetrachloroethane	99%	%REC	11/8/16 11:16	70-130
Chlorobenzene	101%	%REC	11/8/16 11:16	70-130
Ethylbenzene	99%	%REC	11/8/16 11:16	70-130
p & m-Xylene	99%	%REC	11/8/16 11:16	70-130
1,1,2,2-Tetrachloroethane	99%	%REC	11/8/16 11:16	70-130
o-Xylene	96%	%REC	11/8/16 11:16	70-130
1,2,3-Trichloropropane	95%	%REC	11/8/16 11:16	70-130
Isopropylbenzene	98%	%REC	11/8/16 11:16	70-130
1,3,5-Trimethylbenzene	108%	%REC	11/8/16 11:16	70-130
1,2,4-Trimethylbenzene	100%	%REC	11/8/16 11:16	70-130
1,3-Dichlorobenzene	101%	%REC	11/8/16 11:16	70-130
1,4-Dichlorobenzene	103%	%REC	11/8/16 11:16	70-130
1,2-Dichlorobenzene	102%	%REC	11/8/16 11:16	70-130
1,2,4-Trichlorobenzene	111%	%REC	11/8/16 11:16	70-130
Naphthalene	108%	%REC	11/8/16 11:16	70-130
1,2,3-Trichlorobenzene	104%	%REC	11/8/16 11:16	70-130
2-Methylnaphthalene	96%	%REC	11/8/16 11:16	70-130
···· , ····				
SURROGATES	Percent Recovery	Limits	Completed	Lab File ID
1,2-DCA-d4	<u>99</u>	70-130	11/8/16 11:16	A16110804
Toluene-d8	108	70-130	11/8/16 11:16	A16110804
Bromofluorobenzene	100	70-130	11/8/16 11:16	A16110804
Distriction	10-	,0150	11/0/10 11.10	

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110806
Beacon Sample ID:	HO234823
Client ID/Sampling Location:	SV-03A
Date Time Collected:	10/26/16 3:01 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	12:26:00 PM
Beacon Job Number:	3588
	D 1/

Deacon job Number.	3388				
	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 12:26
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 12:26
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 12:26
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 12:26
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 12:26
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 12:26
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 12:26
Chloroform	U	10.00	U	2.05	11/8/16 12:26
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 12:26
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 12:26
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 12:26
Benzene	U	10.00	U	3.13	11/8/16 12:26
Trichloroethene	U	10.00	U	1.86	11/8/16 12:26
1,4-Dioxane	U	10.00	U	2.77	11/8/16 12:26
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 12:26
Toluene	44.57	10.00	11.83	2.65	11/8/16 12:26
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 12:26
Tetrachloroethene	U	10.00	U	1.47	11/8/16 12:26
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 12:26
Chlorobenzene	U	10.00	U	2.17	11/8/16 12:26
Ethylbenzene	U	10.00	U	2.30	11/8/16 12:26
p & m-Xylene	27.43	10.00	6.32	2.30	11/8/16 12:26
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 12:26
o-Xylene	U	10.00	U	2.30	11/8/16 12:26
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 12:26
Isopropylbenzene	U	10.00	U	2.03	11/8/16 12:26
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 12:26
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 12:26
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 12:26
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 12:26
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 12:26
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 12:26
Naphthalene	19.56	10.00	3.73	1.91	11/8/16 12:26
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 12:26
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 12:26
	-		-		
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	96	70-130	A16110806		11/8/16 12:26
Toluene-d8	103	70-130	A16110806		11/8/16 12:26
Bromofluorobenzene	108	70-130	A16110806		11/8/16 12:26
	200				11, 0, 10 12.20

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110808
Beacon Sample ID:	GO119804
Client ID/Sampling Location:	SV-04A
Date Time Collected:	10/26/16 4:10 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	1:13:00 PM
Beacon Job Number:	3588
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 13:13
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 13:13
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 13:13
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 13:13
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 13:13
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 13:13
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 13:13
Chloroform	U	10.00	U	2.05	11/8/16 13:13
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 13:13
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 13:13
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 13:13
Benzene	U	10.00	U	3.13	11/8/16 13:13
Trichloroethene	U	10.00	U	1.86	11/8/16 13:13
1,4-Dioxane	U	10.00	U	2.77	11/8/16 13:13
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 13:13
Toluene	13.25	10.00	3.52	2.65	11/8/16 13:13
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 13:13
Tetrachloroethene	U	10.00	U	1.47	11/8/16 13:13
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 13:13
Chlorobenzene	U	10.00	U	2.17	11/8/16 13:13
Ethylbenzene	U	10.00	U	2.30	11/8/16 13:13
p & m-Xylene	U	10.00	U	2.30	11/8/16 13:13
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 13:13
o-Xylene	U	10.00	U	2.30	11/8/16 13:13
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 13:13
Isopropylbenzene	U	10.00	U	2.03	11/8/16 13:13
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 13:13
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 13:13
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 13:13
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 13:13
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 13:13
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 13:13
Naphthalene	U	10.00	U	1.91	11/8/16 13:13
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 13:13
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 13:13
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	99	70-130	A16110808		11/8/16 13:13
Toluene-d8	106	70-130	A16110808		11/8/16 13:13
Bromofluorobenzene	105	70-130	A16110808		11/8/16 13:13

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110810
Beacon Sample ID:	HO234809
Client ID/Sampling Location:	SV-06A
Date Time Collected:	10/25/16 11:33 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	1:59:00 PM
Beacon Job Number:	3588
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 13:59
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 13:59
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 13:59
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 13:59
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 13:59
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 13:59
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 13:59
Chloroform	U	10.00	U	2.05	11/8/16 13:59
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 13:59
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 13:59
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 13:59
Benzene	U	10.00	U	3.13	11/8/16 13:59
Trichloroethene	U	10.00	U	1.86	11/8/16 13:59
1,4-Dioxane	U	10.00	U	2.77	11/8/16 13:59
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 13:59
Toluene	U	10.00	U	2.65	11/8/16 13:59
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 13:59
Tetrachloroethene	U	10.00	U	1.47	11/8/16 13:59
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 13:59
Chlorobenzene	U	10.00	U	2.17	11/8/16 13:59
Ethylbenzene	U	10.00	U	2.30	11/8/16 13:59
p & m-Xylene	U	10.00	U	2.30	11/8/16 13:59
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 13:59
o-Xylene	U	10.00	U	2.30	11/8/16 13:59
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 13:59
Isopropylbenzene	U	10.00	U	2.03	11/8/16 13:59
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 13:59
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 13:59
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 13:59
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 13:59
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 13:59
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 13:59
Naphthalene	U	10.00	U	1.91	11/8/16 13:59
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 13:59
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 13:59
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	98	70-130	A16110810		11/8/16 13:59
Toluene-d8	107	70-130	A16110810		11/8/16 13:59
Bromofluorobenzene	104	70-130	A16110810		11/8/16 13:59

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110812
Beacon Sample ID:	HO199678
Client ID/Sampling Location:	SV-07A
Date Time Collected:	10/25/16 1:40 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	2:45:00 PM
Beacon Job Number:	3588
	D 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 14:45
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 14:45
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 14:45
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 14:45
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 14:45
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 14:45
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 14:45
Chloroform	U	10.00	U	2.05	11/8/16 14:45
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 14:45
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 14:45
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 14:45
Benzene	U	10.00	U	3.13	11/8/16 14:45
Trichloroethene	U	10.00	U	1.86	11/8/16 14:45
1,4-Dioxane	U	10.00	U	2.77	11/8/16 14:45
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 14:45
Toluene	U	10.00	U	2.65	11/8/16 14:45
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 14:45
Tetrachloroethene	U	10.00	U	1.47	11/8/16 14:45
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 14:45
Chlorobenzene	U	10.00	U	2.17	11/8/16 14:45
Ethylbenzene	U	10.00	U	2.30	11/8/16 14:45
p & m-Xylene	U	10.00	U	2.30	11/8/16 14:45
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 14:45
o-Xylene	U	10.00	U	2.30	11/8/16 14:45
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 14:45
Isopropylbenzene	U	10.00	U	2.03	11/8/16 14:45
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 14:45
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 14:45
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 14:45
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 14:45
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 14:45
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 14:45
Naphthalene	U	10.00	U	1.91	11/8/16 14:45
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 14:45
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 14:45
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	96	70-130	A16110812		11/8/16 14:45
Toluene-d8	103	70-130	A16110812		11/8/16 14:45
Bromofluorobenzene	104	70-130	A16110812		11/8/16 14:45

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110814
Beacon Sample ID:	1049238
Client ID/Sampling Location:	SV-08A
Date Time Collected:	10/25/16 3:42 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	3:31:00 PM
Beacon Job Number:	3588
	D 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 15:31
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 15:31
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 15:31
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 15:31
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 15:31
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 15:31
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 15:31
Chloroform	U	10.00	U	2.05	11/8/16 15:31
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 15:31
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 15:31
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 15:31
Benzene	U	10.00	U	3.13	11/8/16 15:31
Trichloroethene	U	10.00	U	1.86	11/8/16 15:31
1,4-Dioxane	U	10.00	U	2.77	11/8/16 15:31
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 15:31
Toluene	U	10.00	U	2.65	11/8/16 15:31
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 15:31
Tetrachloroethene	U	10.00	U	1.47	11/8/16 15:31
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 15:31
Chlorobenzene	U	10.00	U	2.17	11/8/16 15:31
Ethylbenzene	U	10.00	U	2.30	11/8/16 15:31
p & m-Xylene	U	10.00	U	2.30	11/8/16 15:31
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 15:31
o-Xylene	U	10.00	U	2.30	11/8/16 15:31
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 15:31
Isopropylbenzene	U	10.00	U	2.03	11/8/16 15:31
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 15:31
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 15:31
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 15:31
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 15:31
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 15:31
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 15:31
Naphthalene	U	10.00	U	1.91	11/8/16 15:31
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 15:31
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 15:31
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	97	70-130	A16110814		11/8/16 15:31
Toluene-d8	107	70-130	A16110814		11/8/16 15:31
Bromofluorobenzene	102	70-130	A16110814		11/8/16 15:31

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110816
Beacon Sample ID:	GO177458
Client ID/Sampling Location:	SV-09A
Date Time Collected:	10/25/16 5:23 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	4:18:00 PM
Beacon Job Number:	3588
	D 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 16:18
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 16:18
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 16:18
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 16:18
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 16:18
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 16:18
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 16:18
Chloroform	U	10.00	U	2.05	11/8/16 16:18
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 16:18
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 16:18
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 16:18
Benzene	U	10.00	U	3.13	11/8/16 16:18
Trichloroethene	U	10.00	U	1.86	11/8/16 16:18
1,4-Dioxane	U	10.00	U	2.77	11/8/16 16:18
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 16:18
Toluene	U	10.00	U	2.65	11/8/16 16:18
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 16:18
Tetrachloroethene	U	10.00	U	1.47	11/8/16 16:18
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 16:18
Chlorobenzene	U	10.00	U	2.17	11/8/16 16:18
Ethylbenzene	U	10.00	U	2.30	11/8/16 16:18
p & m-Xylene	U	10.00	U	2.30	11/8/16 16:18
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 16:18
o-Xylene	U	10.00	U	2.30	11/8/16 16:18
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 16:18
Isopropylbenzene	U	10.00	U	2.03	11/8/16 16:18
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 16:18
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 16:18
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 16:18
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 16:18
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 16:18
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 16:18
Naphthalene	U	10.00	U	1.91	11/8/16 16:18
1,2,3-Trichlorobenzene	U	10.00	Ū	1.35	11/8/16 16:18
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 16:18
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	99	70-130	A16110816		11/8/16 16:18
Toluene-d8	106	70-130	A16110816		11/8/16 16:18
Bromofluorobenzene	107	70-130	A16110816		11/8/16 16:18

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110818
Beacon Sample ID:	GO177407
Client ID/Sampling Location:	SV-10A
Date Time Collected:	10/26/16 5:54 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	5:04:00 PM
Beacon Job Number:	3588
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 17:04
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 17:04
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 17:04
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 17:04
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 17:04
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 17:04
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 17:04
Chloroform	U	10.00	U	2.05	11/8/16 17:04
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 17:04
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 17:04
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 17:04
Benzene	U	10.00	U	3.13	11/8/16 17:04
Trichloroethene	U	10.00	U	1.86	11/8/16 17:04
1,4-Dioxane	U	10.00	U	2.77	11/8/16 17:04
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 17:04
Toluene	17.5	10.00	4.64	2.65	11/8/16 17:04
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 17:04
Tetrachloroethene	U	10.00	U	1.47	11/8/16 17:04
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 17:04
Chlorobenzene	U	10.00	U	2.17	11/8/16 17:04
Ethylbenzene	U	10.00	U	2.30	11/8/16 17:04
p & m-Xylene	U	10.00	U	2.30	11/8/16 17:04
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 17:04
o-Xylene	U	10.00	U	2.30	11/8/16 17:04
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 17:04
Isopropylbenzene	U	10.00	U	2.03	11/8/16 17:04
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 17:04
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 17:04
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 17:04
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 17:04
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 17:04
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 17:04
Naphthalene	U	10.00	U	1.91	11/8/16 17:04
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 17:04
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 17:04
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	96	70-130	A16110818		11/8/16 17:04
Toluene-d8	106	70-130	A16110818		11/8/16 17:04
Bromofluorobenzene	105	70-130	A16110818		11/8/16 17:04

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110820
Beacon Sample ID:	GO164559
Client ID/Sampling Location:	SV-11A
Date Time Collected:	10/26/16 5:21 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	5:51:00 PM
Beacon Job Number:	3588
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 17:51
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 17:51
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 17:51
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 17:51
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 17:51
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 17:51
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 17:51
Chloroform	U	10.00	U	2.05	11/8/16 17:51
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 17:51
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 17:51
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 17:51
Benzene	U	10.00	U	3.13	11/8/16 17:51
Trichloroethene	U	10.00	U	1.86	11/8/16 17:51
1,4-Dioxane	U	10.00	U	2.77	11/8/16 17:51
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 17:51
Toluene	17.44	10.00	4.63	2.65	11/8/16 17:51
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 17:51
Tetrachloroethene	U	10.00	U	1.47	11/8/16 17:51
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 17:51
Chlorobenzene	U	10.00	U	2.17	11/8/16 17:51
Ethylbenzene	U	10.00	U	2.30	11/8/16 17:51
p & m-Xylene	U	10.00	U	2.30	11/8/16 17:51
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 17:51
o-Xylene	U	10.00	U	2.30	11/8/16 17:51
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 17:51
Isopropylbenzene	U	10.00	U	2.03	11/8/16 17:51
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 17:51
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 17:51
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 17:51
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 17:51
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 17:51
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 17:51
Naphthalene	U	10.00	U	1.91	11/8/16 17:51
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 17:51
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 17:51
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	96	70-130	A16110820		11/8/16 17:51
Toluene-d8	108	70-130	A16110820		11/8/16 17:51
Bromofluorobenzene	107	70-130	A16110820		11/8/16 17:51

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110822
Beacon Sample ID:	HO200253
Client ID/Sampling Location:	SV-12A
Date Time Collected:	10/26/16 4:43 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	6:39:00 PM
Beacon Job Number:	3588
	<b>n</b> 1.

Beacon Job Number.	5588				
	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 18:39
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 18:39
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 18:39
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 18:39
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 18:39
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 18:39
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 18:39
Chloroform	U	10.00	U	2.05	11/8/16 18:39
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 18:39
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 18:39
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 18:39
Benzene	U	10.00	U	3.13	11/8/16 18:39
Trichloroethene	U	10.00	U	1.86	11/8/16 18:39
1,4-Dioxane	U	10.00	U	2.77	11/8/16 18:39
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 18:39
Toluene	14.31	10.00	3.8	2.65	11/8/16 18:39
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 18:39
Tetrachloroethene	U	10.00	U	1.47	11/8/16 18:39
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 18:39
Chlorobenzene	U	10.00	U	2.17	11/8/16 18:39
Ethylbenzene	U	10.00	U	2.30	11/8/16 18:39
p & m-Xylene	U	10.00	U	2.30	11/8/16 18:39
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 18:39
o-Xylene	U	10.00	U	2.30	11/8/16 18:39
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 18:39
Isopropylbenzene	U	10.00	U	2.03	11/8/16 18:39
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 18:39
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 18:39
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 18:39
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 18:39
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 18:39
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 18:39
Naphthalene	U	10.00	U	1.91	11/8/16 18:39
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 18:39
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 18:39
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SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	96	70-130	A16110822		11/8/16 18:39
Toluene-d8	103	70-130	A16110822		11/8/16 18:39
Bromofluorobenzene	106	70-130	A16110822		11/8/16 18:39

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110824
Beacon Sample ID:	GO115947
Client ID/Sampling Location:	SV-14A
Date Time Collected:	10/26/16 3:38 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	7:25:00 PM
Beacon Job Number:	3588
	<b>n</b> 1.

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 19:25
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 19:25
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 19:25
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 19:25
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 19:25
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 19:25
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 19:25
Chloroform	U	10.00	U	2.05	11/8/16 19:25
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 19:25
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 19:25
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 19:25
Benzene	U	10.00	U	3.13	11/8/16 19:25
Trichloroethene	U	10.00	U	1.86	11/8/16 19:25
1,4-Dioxane	U	10.00	U	2.77	11/8/16 19:25
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 19:25
Toluene	31.71	10.00	8.42	2.65	11/8/16 19:25
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 19:25
Tetrachloroethene	U	10.00	U	1.47	11/8/16 19:25
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 19:25
Chlorobenzene	U	10.00	U	2.17	11/8/16 19:25
Ethylbenzene	U	10.00	U	2.30	11/8/16 19:25
p & m-Xylene	21.31	10.00	4.91	2.30	11/8/16 19:25
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 19:25
o-Xylene	U	10.00	U	2.30	11/8/16 19:25
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 19:25
Isopropylbenzene	U	10.00	U	2.03	11/8/16 19:25
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 19:25
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 19:25
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 19:25
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 19:25
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 19:25
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 19:25
Naphthalene	14.05	10.00	2.68	1.91	11/8/16 19:25
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 19:25
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 19:25
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	95	70-130	A16110824		11/8/16 19:25
Toluene-d8	107	70-130	A16110824		11/8/16 19:25
Bromofluorobenzene	107	70-130	A16110824		11/8/16 19:25

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110826
Beacon Sample ID:	HO199673
Client ID/Sampling Location:	SV-16A
Date Time Collected:	10/26/16 1:40 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	8:12:00 PM
Beacon Job Number:	3588
	<b>n</b> 1.

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 20:12
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 20:12
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 20:12
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 20:12
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 20:12
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 20:12
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 20:12
Chloroform	U	10.00	U	2.05	11/8/16 20:12
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 20:12
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 20:12
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 20:12
Benzene	U	10.00	U	3.13	11/8/16 20:12
Trichloroethene	U	10.00	U	1.86	11/8/16 20:12
1,4-Dioxane	U	10.00	U	2.77	11/8/16 20:12
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 20:12
Toluene	55.72	10.00	14.79	2.65	11/8/16 20:12
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 20:12
Tetrachloroethene	U	10.00	U	1.47	11/8/16 20:12
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 20:12
Chlorobenzene	U	10.00	U	2.17	11/8/16 20:12
Ethylbenzene	11.59	10.00	2.67	2.30	11/8/16 20:12
p & m-Xylene	39.66	10.00	9.13	2.30	11/8/16 20:12
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 20:12
o-Xylene	12.96	10.00	2.98	2.30	11/8/16 20:12
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 20:12
Isopropylbenzene	U	10.00	U	2.03	11/8/16 20:12
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 20:12
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 20:12
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 20:12
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 20:12
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 20:12
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 20:12
Naphthalene	24.05	10.00	4.59	1.91	11/8/16 20:12
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 20:12
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 20:12
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	94	70-130	A16110826		11/8/16 20:12
Toluene-d8	105	70-130	A16110826		11/8/16 20:12
Bromofluorobenzene	109	70-130	A16110826		11/8/16 20:12

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

	Lab File ID:	A16110828
	Beacon Sample ID:	HO232690
Client l	D/Sampling Location:	SV-17A
	Date Time Collected:	10/26/16 2:23 PM
	Matrix:	Soil Gas
	Dilution Factor:	1.0
Sar	nple Volume in Liters:	1.00
	Date Received:	11/4/2016
	Analysis Date:	11/8/2016
	Analysis Time:	8:59:00 PM
	Beacon Job Number:	3588

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 20:59
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 20:59
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 20:59
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 20:59
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 20:59
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 20:59
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 20:59
Chloroform	U	10.00	U	2.05	11/8/16 20:59
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 20:59
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 20:59
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 20:59
Benzene	U	10.00	U	3.13	11/8/16 20:59
Trichloroethene	U	10.00	U	1.86	11/8/16 20:59
1,4-Dioxane	U	10.00	U	2.77	11/8/16 20:59
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 20:59
Toluene	41.0	10.00	10.88	2.65	11/8/16 20:59
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 20:59
Tetrachloroethene	U	10.00	U	1.47	11/8/16 20:59
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 20:59
Chlorobenzene	U	10.00	U	2.17	11/8/16 20:59
Ethylbenzene	10.04	10.00	2.31	2.30	11/8/16 20:59
p & m-Xylene	34.11	10.00	7.86	2.30	11/8/16 20:59
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 20:59
o-Xylene	12.04	10.00	2.77	2.30	11/8/16 20:59
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 20:59
Isopropylbenzene	U	10.00	U	2.03	11/8/16 20:59
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 20:59
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 20:59
1,3-Dichlorobenzene	U	10.00	U	1.66	11/8/16 20:59
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 20:59
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 20:59
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 20:59
Naphthalene	22.73	10.00	4.34	1.91	11/8/16 20:59
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 20:59
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 20:59
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	95	70-130	A16110828		11/8/16 20:59
Toluene-d8	104	70-130	A16110828		11/8/16 20:59
Bromofluorobenzene	107	70-130	A16110828		11/8/16 20:59

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110830
Beacon Sample ID:	HO199664
Client ID/Sampling Location:	SV-21A
Date Time Collected:	10/27/16 4:24 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	9:45:00 PM
Beacon Job Number:	3588
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 21:45
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 21:45
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 21:45
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 21:45
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 21:45
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 21:45
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 21:45
Chloroform	U	10.00	U	2.05	11/8/16 21:45
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 21:45
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 21:45
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 21:45
Benzene	U	10.00	U	3.13	11/8/16 21:45
Trichloroethene	U	10.00	U	1.86	11/8/16 21:45
1,4-Dioxane	14.72	10.00	4.08	2.77	11/8/16 21:45
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 21:45
Toluene	36.29	10.00	9.63	2.65	11/8/16 21:45
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 21:45
Tetrachloroethene	U	10.00	U	1.47	11/8/16 21:45
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 21:45
Chlorobenzene	U	10.00	U	2.17	11/8/16 21:45
Ethylbenzene	U	10.00	U	2.30	11/8/16 21:45
p & m-Xylene	U	10.00	U	2.30	11/8/16 21:45
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 21:45
o-Xylene	U	10.00	U	2.30	11/8/16 21:45
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 21:45
Isopropylbenzene	U	10.00	U	2.03	11/8/16 21:45
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 21:45
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 21:45
1,3-Dichlorobenzene	949.69 E	10.00	157.95 E	1.66	11/8/16 21:45
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 21:45
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 21:45
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 21:45
Naphthalene	U	10.00	U	1.91	11/8/16 21:45
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 21:45
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 21:45
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	94	70-130	A16110830		11/8/16 21:45
Toluene-d8	103	70-130	A16110830		11/8/16 21:45
Bromofluorobenzene	107	70-130	A16110830		11/8/16 21:45

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110832
Beacon Sample ID:	HO200288
Client ID/Sampling Location:	SV-23A
Date Time Collected:	10/27/16 4:57 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	10:31:00 PM
Beacon Job Number:	3588
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 22:31
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 22:31
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 22:31
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 22:31
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 22:31
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 22:31
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 22:31
Chloroform	U	10.00	U	2.05	11/8/16 22:31
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 22:31
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 22:31
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 22:31
Benzene	U	10.00	U	3.13	11/8/16 22:31
Trichloroethene	U	10.00	U	1.86	11/8/16 22:31
1,4-Dioxane	15.2	10.00	4.22	2.77	11/8/16 22:31
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 22:31
Toluene	28.15	10.00	7.47	2.65	11/8/16 22:31
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 22:31
Tetrachloroethene	U	10.00	U	1.47	11/8/16 22:31
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 22:31
Chlorobenzene	U	10.00	U	2.17	11/8/16 22:31
Ethylbenzene	U	10.00	U	2.30	11/8/16 22:31
p & m-Xylene	U	10.00	U	2.30	11/8/16 22:31
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 22:31
o-Xylene	U	10.00	U	2.30	11/8/16 22:31
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 22:31
Isopropylbenzene	U	10.00	U	2.03	11/8/16 22:31
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 22:31
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 22:31
1,3-Dichlorobenzene	1,076.85 E	10.00	179.1 E	1.66	11/8/16 22:31
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 22:31
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 22:31
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 22:31
Naphthalene	U	10.00	U	1.91	11/8/16 22:31
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 22:31
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 22:31
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	95	70-130	A16110832		11/8/16 22:31
Toluene-d8	101	70-130	A16110832		11/8/16 22:31
Bromofluorobenzene	107	70-130	A16110832		11/8/16 22:31

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110834
Beacon Sample ID:	1049249
Client ID/Sampling Location:	SV-27A
Date Time Collected:	10/27/16 3:55 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/8/2016
Analysis Time:	11:18:00 PM
Beacon Job Number:	3588
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/8/16 23:18
1,1-Dichloroethene	U	10.00	U	2.52	11/8/16 23:18
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/8/16 23:18
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 23:18
Methyl-t-butyl ether	U	10.00	U	2.77	11/8/16 23:18
1,1-Dichloroethane	U	10.00	U	2.47	11/8/16 23:18
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/8/16 23:18
Chloroform	U	10.00	U	2.05	11/8/16 23:18
1,2-Dichloroethane	U	10.00	U	2.47	11/8/16 23:18
1,1,1-Trichloroethane	U	10.00	U	1.83	11/8/16 23:18
Carbon Tetrachloride	U	10.00	U	1.59	11/8/16 23:18
Benzene	U	10.00	U	3.13	11/8/16 23:18
Trichloroethene	U	10.00	U	1.86	11/8/16 23:18
1,4-Dioxane	U	10.00	U	2.77	11/8/16 23:18
1,1,2-Trichloroethane	U	10.00	U	1.83	11/8/16 23:18
Toluene	45.91	10.00	12.18	2.65	11/8/16 23:18
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/8/16 23:18
Tetrachloroethene	U	10.00	U	1.47	11/8/16 23:18
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 23:18
Chlorobenzene	U	10.00	U	2.17	11/8/16 23:18
Ethylbenzene	U	10.00	U	2.30	11/8/16 23:18
p & m-Xylene	U	10.00	U	2.30	11/8/16 23:18
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/8/16 23:18
o-Xylene	U	10.00	U	2.30	11/8/16 23:18
1,2,3-Trichloropropane	U	10.00	U	1.66	11/8/16 23:18
Isopropylbenzene	U	10.00	U	2.03	11/8/16 23:18
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/8/16 23:18
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/8/16 23:18
1,3-Dichlorobenzene	876.94 E	10.00	145.85 E	1.66	11/8/16 23:18
1,4-Dichlorobenzene	U	10.00	U	1.66	11/8/16 23:18
1,2-Dichlorobenzene	U	10.00	U	1.66	11/8/16 23:18
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/8/16 23:18
Naphthalene	U	10.00	U	1.91	11/8/16 23:18
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/8/16 23:18
2-Methylnaphthalene	U	10.00	U	1.72	11/8/16 23:18
· ·					
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	95	70-130	A16110834		11/8/16 23:18
Toluene-d8	104	70-130	A16110834		11/8/16 23:18
Bromofluorobenzene					

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110836
Beacon Sample ID:	1100863
Client ID/Sampling Location:	SV-28A
Date Time Collected:	10/27/16 3:26 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/9/2016
Analysis Time:	12:07:00 AM
Beacon Job Number:	3588
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 0:07
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 0:07
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 0:07
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 0:07
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 0:07
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 0:07
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 0:07
Chloroform	U	10.00	U	2.05	11/9/16 0:07
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 0:07
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 0:07
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 0:07
Benzene	U	10.00	U	3.13	11/9/16 0:07
Trichloroethene	U	10.00	U	1.86	11/9/16 0:07
1,4-Dioxane	U	10.00	U	2.77	11/9/16 0:07
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 0:07
Toluene	47.19	10.00	12.52	2.65	11/9/16 0:07
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 0:07
Tetrachloroethene	U	10.00	U	1.47	11/9/16 0:07
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 0:07
Chlorobenzene	U	10.00	U	2.17	11/9/16 0:07
Ethylbenzene	U	10.00	U	2.30	11/9/16 0:07
p & m-Xylene	U	10.00	U	2.30	11/9/16 0:07
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 0:07
o-Xylene	U	10.00	U	2.30	11/9/16 0:07
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 0:07
Isopropylbenzene	U	10.00	U	2.03	11/9/16 0:07
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 0:07
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 0:07
1,3-Dichlorobenzene	1,179.27 E	10.00	196.13 E	1.66	11/9/16 0:07
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 0:07
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 0:07
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 0:07
Naphthalene	U	10.00	U	1.91	11/9/16 0:07
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 0:07
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 0:07
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	93	70-130	A16110836		11/9/16 0:07
Toluene-d8	104	70-130	A16110836		11/9/16 0:07
Bromofluorobenzene	107	70-130	A16110836		11/9/16 0:07

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110838
Beacon Sample ID:	HO200227
Client ID/Sampling Location:	SV-29A
Date Time Collected:	10/27/16 3:00 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/9/2016
Analysis Time:	12:53:00 AM
Beacon Job Number:	3588
	D 1/

Vinyl Chloride       U       10.00       U       3.91       11.9/16 0:53         1,1-Dichloroethene       U       10.00       U       2.52       11/9/16 0:53         rans-1,2-Dichloroethane (Fr.113)       U       10.00       U       2.52       11/9/16 0:53         dethyl-1-butyl ether       U       10.00       U       2.52       11/9/16 0:53         isis-1,2-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         isis-1,2-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         2,2-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         2,2-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         2,1,1-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         Garbon       U       10.00       U       1.83       11/9/16 0:53         Garbon       U       10.00       U       1.83       11/9/16 0:53         Garbon       U       10.00       U       1.83       11/9/16 0:53         1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53		Results	LOQ	Results	LOQ	
1,1-Dichloroethene       U       10.00       U       2.52       11/9/16 0:53         1,1,2-Trichloroethene       U       10.00       U       2.52       11/9/16 0:53         Methyl-t-butyl ether       U       10.00       U       2.52       11/9/16 0:53         Methyl-t-butyl ether       U       10.00       U       2.77       11/9/16 0:53         1,1-Dichloroethane       U       10.00       U       2.52       11/9/16 0:53         Sis-1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 0:53         2,2-Dichloroethane       U       10.00       U       2.52       11/9/16 0:53         2,2-Dichloroethane       U       10.00       U       1.83       11/9/16 0:53         2,2-Dichloroethane       U       10.00       U       1.83       11/9/16 0:53         Sarzene       U       10.00       U       1.83       11/9/16 0:53         frickloroethane       U       10.00       U       1.83       11/9/16 0:53         clouene <b>5.662</b> 10.00 <b>4.457</b> 2.65       11/9/16 0:53         clouene <b>5.602</b> 10.00       U       1.47       11/9/16 0:53	COMPOUNDS		ug/m3			
1, 2-Trichlorottrifluoroethane (Fr. 113)       U       10.00       U       1.30       11/9/16 0:53         rans-1, 2-Dichloroethane       U       10.00       U       2.52       11/9/16 0:53         Methyl-t-butyl ether       U       10.00       U       2.77       11/9/16 0:53         1, 1-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         2, Dichloroethane       U       10.00       U       2.52       11/9/16 0:53         2, Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         2, Dichloroethane       U       10.00       U       1.83       11/9/16 0:53         2, Dichloroethane       U       10.00       U       1.83       11/9/16 0:53         Ganzene       U       10.00       U       1.83       11/9/16 0:53         Ganzene       U       10.00       U       1.83       11/9/16 0:53         I,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         I,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         I,1,2-Trichloroethane       U       10.00       U       1.43       11/9/16 0:53	Vinyl Chloride	U	10.00	U	3.91	11/9/16 0:53
rans-1,2-Dichloroethene       U       10.00       U       2.52       11/9/16 0:53         dethyl-butyl ether       U       10.00       U       2.77       11/9/16 0:53         iis-1,2-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         Zhoroform       U       10.00       U       2.52       11/9/16 0:53         Zhoroform       U       10.00       U       2.47       11/9/16 0:53         2,-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         2,-Dichloroethane       U       10.00       U       1.83       11/9/16 0:53         2,arbon Tetrachloride       U       10.00       U       1.83       11/9/16 0:53         Senzene       U       10.00       U       1.83       11/9/16 0:53         1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         2,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         1,1,2-Trichloroethane       U       10.00       U       1.43       11/9/16 0:53         1,1,2-Trichloroethane       U       10.00       U       1.46       11/9/16 0:53	1,1-Dichloroethene			U		
Methyl-t-butyl ether         U         10.00         U         2.77         11/9/16 0:53           1,1-Dichloroethane         U         10.00         U         2.47         11/9/16 0:53           Sils-1,2-Dichloroethane         U         10.00         U         2.52         11/9/16 0:53           Chloroform         U         10.00         U         2.65         11/9/16 0:53           2,2-Dichloroethane         U         10.00         U         1.59         11/9/16 0:53           Carbon Tetrachloride         U         10.00         U         1.59         11/9/16 0:53           Carbon Tetrachloride         U         10.00         U         1.83         11/9/16 0:53           Sarbon Tetrachloride         U         10.00         U         1.83         11/9/16 0:53           J,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 0:53           Greuchene <b>56.02</b> 10.00         U         1.47         11/9/16 0:53           J,2-Dibromoethane (EDB)         U         10.00         U         1.47         11/9/16 0:53           Chromobenzene         U         10.00         U         2.17         11/9/16 0:53           LM	1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 0:53
L1-Dichloroethane         U         10.00         U         2.47         11/9/16 0:53           isi-1_2-Dichloroethane         U         10.00         U         2.52         11/9/16 0:53           2-Dichloroethane         U         10.00         U         2.47         11/9/16 0:53           2-Dichloroethane         U         10.00         U         2.47         11/9/16 0:53           2-Dichloroethane         U         10.00         U         1.83         11/9/16 0:53           Barzene         U         10.00         U         3.13         11/9/16 0:53           Sarbon Tetrachloride         U         10.00         U         1.86         11/9/16 0:53           Sarbrene         U         10.00         U         1.83         11/9/16 0:53           1/1.2-Trichloroethane         U         10.00         U         1.83         11/9/16 0:53           1/1.2-Trichloroethane         U         10.00         U         1.83         11/9/16 0:53           1/1.2-Trichloroethane         U         10.00         U         1.46         11/9/16 0:53           1/2-Dichloroethane         U         10.00         U         2.46         11/9/16 0:53           1/1.2-Tetrachloroeth	trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 0:53
is-1,2-Dichloroethene       U       10.00       U       2.52       11/9/16 0:53         Chloroform       U       10.00       U       2.05       11/9/16 0:53         1,2-Dichloroethane       U       10.00       U       1.83       11/9/16 0:53         Carbon Tetrachloride       U       10.00       U       1.83       11/9/16 0:53         Carbon Tetrachloride       U       10.00       U       1.83       11/9/16 0:53         Senzene       U       10.00       U       1.86       11/9/16 0:53         1,1-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         1,2-Trichloroethane       U       10.00       U       1.30       11/9/16 0:53         Coluene <b>56.02</b> 10.00       U       1.30       11/9/16 0:53         Colorobenzene       U       10.00       U       1.30       11/9/16 0:53         Chlorobenzene       U       10.00       U       2.30       11/9/16 0:53         1,1,2-Zretrachloroethane       U       10.00       U       2.30       11/9/16 0:53         1,2,2	Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 0:53
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 0:53
1.2-Dichloroethane       U       10.00       U       2.47       11/9/16 0:53         1.1,1-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         Carbon Tetrachloride       U       10.00       U       1.59       11/9/16 0:53         Benzene       U       10.00       U       3.13       11/9/16 0:53         Senzene       U       10.00       U       3.13       11/9/16 0:53         Frichloroethane       U       10.00       U       1.86       11/9/16 0:53         1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         2,2-Dibromoethane (EDB)       U       10.00       U       1.83       11/9/16 0:53         2,2-Dibromoethane (EDB)       U       10.00       U       1.30       11/9/16 0:53         2,2-Dibromoethane       U       10.00       U       1.46       11/9/16 0:53         2,2-Dibromoethane       U       10.00       U       2.30       11/9/16 0:53         2,2-Ditrachloroethane       U       10.00       U       2.30       11/9/16 0:53         2,1,1,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 0:53	cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 0:53
1,1-TrichloroethaneU10.00U1.8311/9/16 0:53Carbon TetrachlorideU10.00U1.5911/9/16 0:53SenzeneU10.00U3.1311/9/16 0:53SenzeneU10.00U3.1311/9/16 0:53TichloroetheneU10.00U1.8611/9/16 0:531,4-Dioxane15.6610.004.352.7711/9/16 0:53Goluene56.0210.00U1.8311/9/16 0:532,2-Dioromothane (EDB)U10.00U1.3011/9/16 0:532,2-DioromothaneU10.00U1.4711/9/16 0:532,2-DioromothaneU10.00U1.4611/9/16 0:532,2-DioromothaneU10.00U2.3011/9/16 0:532,1,1,2-TetrachloroethaneU10.00U2.3011/9/16 0:532,1,1,2-TetrachloroethaneU10.00U2.3011/9/16 0:532,1,1,2-TetrachloroethaneU10.00U2.3011/9/16 0:532,1,2,2-TetrachloroethaneU10.00U2.3011/9/16 0:532,2,2-TetrachloroethaneU10.00U2.0311/9/16 0:532,3-TrichloropropaneU10.00U2.0311/9/16 0:533,3-TrichloropropaneU10.00U2.0311/9/16 0:533,3-TrichlorobenzeneU10.00U2.0311/9/16 0:533,3-TrichlorobenzeneU10.00 </td <td>Chloroform</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.05</td> <td>11/9/16 0:53</td>	Chloroform	U	10.00	U	2.05	11/9/16 0:53
Carbon Tetrachloride         U         10.00         U         1.59         11/9/16 0:53           Senzene         U         10.00         U         3.13         11/9/16 0:53           Frichloroethene         U         10.00         U         1.86         11/9/16 0:53           A-Dioxane         15.66         10.00         U         1.83         11/9/16 0:53           J,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 0:53           Foluene         56.02         10.00         U         1.83         11/9/16 0:53           Fetrachloroethene         U         10.00         U         1.47         11/9/16 0:53           Chlorobenzene         U         10.00         U         1.47         11/9/16 0:53           Chlorobenzene         U         10.00         U         2.47         11/9/16 0:53           Chlorobenzene         U         10.00         U         2.30         11/9/16 0:53           Chlorobenzene         U         10.00         U         2.30         11/9/16 0:53           J,1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 0:53           J,2,2-Tetrachloroethane         U	1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 0:53
Benzene         U         10.00         U         3.13         11/9/16 0:53           Trichloroethene         U         10.00         U         1.86         11/9/16 0:53           J,4-Dioxane         U         10.00         U         1.86         11/9/16 0:53           J,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 0:53           Soluene         56.02         10.00         U         1.30         11/9/16 0:53           J,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 0:53           Setrachloroethane         U         10.00         U         1.47         11/9/16 0:53           Chlorobenzene         U         10.00         U         2.17         11/9/16 0:53           Sthylbenzene         U         10.00         U         2.17         11/9/16 0:53           Sthylbenzene         U         10.00         U         2.30         11/9/16 0:53           Stylene         U         10.00         U         2.30         11/9/16 0:53           Sylene         U         10.00         U         2.03         11/9/16 0:53           Sylene         U         10.00         U<	1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 0:53
U       10.00       U       1.86       11/9/16 0:53         1,4-Dioxane       15.66       10.00       4.35       2.77       11/9/16 0:53         roluene       56.02       10.00       U       1.83       11/9/16 0:53         g2-Dibromothane (EDB)       U       10.00       U       1.30       11/9/16 0:53         g2-Dibromothane (EDB)       U       10.00       U       1.47       11/9/16 0:53         I_1,1,2-Tetrachloroethane       U       10.00       U       1.47       11/9/16 0:53         L,1,1,2-Tetrachloroethane       U       10.00       U       2.17       11/9/16 0:53         Chlorobenzene       U       10.00       U       2.17       11/9/16 0:53         Schylbenzene       U       10.00       U       2.30       11/9/16 0:53         Q, & m-Xylene       U       10.00       U       2.30       11/9/16 0:53         L,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 0:53         Systeme       U       10.00       U       2.30       11/9/16 0:53         J,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         J,3,5-Trimethylbenzene <td>Carbon Tetrachloride</td> <td>U</td> <td>10.00</td> <td>U</td> <td>1.59</td> <td>11/9/16 0:53</td>	Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 0:53
14-Dioxane       15.66       10.00       4.35       2.77       11/9/16 0:53         1, 2-Trichloroethane       U       10.00       U       1.83       11/9/16 0:53         Foluene       56.02       10.00       U       1.83       11/9/16 0:53         1, 2-Dibromoethane (EDB)       U       10.00       U       1.30       11/9/16 0:53         Fetrachloroethane       U       10.00       U       1.47       11/9/16 0:53         Fetrachloroethane       U       10.00       U       1.46       11/9/16 0:53         Chlorobenzene       U       10.00       U       2.17       11/9/16 0:53         Chlorobenzene       U       10.00       U       2.30       11/9/16 0:53         Sthylbenzene       U       10.00       U       2.30       11/9/16 0:53         0.4 m-Xylene       U       10.00       U       2.30       11/9/16 0:53         .9.2.2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 0:53         .9.2.3-Trichloropropane       U       10.00       U       2.03       11/9/16 0:53         .9.3-Strichlorobenzene       U       10.00       U       2.03       11/9/16 0:53	Benzene	U	10.00	U	3.13	11/9/16 0:53
U10.00U1.8311/9/16 0:53Foluene56.0210.0014.872.6511/9/16 0:53Coluene56.0210.00U1.3011/9/16 0:53ColueneU10.00U1.3011/9/16 0:53Certachloroethane (EDB)U10.00U1.4711/9/16 0:53FetrachloroethaneU10.00U1.4711/9/16 0:53ChlorobenzeneU10.00U2.1711/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.3011/9/16 0:53ChlorobenzeneU10.00U2.0311/9/16 0:53ChlorobenzeneU10.00U2.0311/9/16 0:53ChlorobenzeneU10.00U2.0311/9/16 0:53ChlorobenzeneU10.00U2.0311/9/16 0:53ChlorobenzeneU10.00U2.0311/9/16 0:53ChlorobenzeneU10.00U1.3511/9/16 0:53ChlorobenzeneU10.00U1.35 <td>Trichloroethene</td> <td>U</td> <td>10.00</td> <td>U</td> <td>1.86</td> <td>11/9/16 0:53</td>	Trichloroethene	U	10.00	U	1.86	11/9/16 0:53
Toluene         56.02         10.00         14.87         2.65         11/9/16 0:53           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 0:53           Fetrachloroethene         U         10.00         U         1.47         11/9/16 0:53           Chlorobenzene         U         10.00         U         1.46         11/9/16 0:53           Chlorobenzene         U         10.00         U         2.17         11/9/16 0:53           Schylbenzene         U         10.00         U         2.30         11/9/16 0:53           ck m-Xylene         27.0         10.00         6.22         2.30         11/9/16 0:53           c,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 0:53           c,2,3-Trichloropropane         U         10.00         U         2.30         11/9/16 0:53           c,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           c,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           c,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           c,2-	1,4-Dioxane	15.66	10.00	4.35	2.77	11/9/16 0:53
U10.00U1.3011/9/16 0:53FetrachloroethaneU10.00U1.4711/9/16 0:53L,1,2-TetrachloroethaneU10.00U1.4611/9/16 0:53ChlorobenzeneU10.00U2.1711/9/16 0:53EthylbenzeneU10.00U2.3011/9/16 0:53SthylbenzeneU10.00U2.3011/9/16 0:53L,1,2,2-TetrachloroethaneU10.00U2.3011/9/16 0:53J,2,2-TetrachloroethaneU10.00U2.3011/9/16 0:53J,2,2-TetrachloropropaneU10.00U2.3011/9/16 0:53J,3,5-TrinethylbenzeneU10.00U2.0311/9/16 0:53J,3,5-TrimethylbenzeneU10.00U2.0311/9/16 0:53J,3,5-TrimethylbenzeneU10.00U2.0311/9/16 0:53J,2,4-TrimethylbenzeneU10.00U2.0311/9/16 0:53J,2-LichlorobenzeneU10.00U1.6611/9/16 0:53J,2-LichlorobenzeneU10.00U1.6611/9/16 0:53J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53J,2,4-TrichlorobenzeneU	1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 0:53
Fetrachloroethene       U       10.00       U       1.47       11/9/16 0:53         1,1,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 0:53         Chlorobenzene       U       10.00       U       2.17       11/9/16 0:53         Schlorobenzene       U       10.00       U       2.30       11/9/16 0:53         Schlybenzene       U       10.00       U       2.30       11/9/16 0:53         1,1,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 0:53         1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 0:53         >-Xylene       U       10.00       U       2.30       11/9/16 0:53         >,2,3-Trichloropropane       U       10.00       U       2.03       11/9/16 0:53         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       1.66       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       1.66       11/9/16 0:53	Toluene	56.02	10.00	14.87	2.65	11/9/16 0:53
Fetrachloroethene       U       10.00       U       1.47       11/9/16 0:53         1,1,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 0:53         Chlorobenzene       U       10.00       U       2.17       11/9/16 0:53         Schlorobenzene       U       10.00       U       2.30       11/9/16 0:53         Schlybenzene       U       10.00       U       2.30       11/9/16 0:53         1,1,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 0:53         1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 0:53         >-Xylene       U       10.00       U       2.30       11/9/16 0:53         >,2,3-Trichloropropane       U       10.00       U       2.03       11/9/16 0:53         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       1.66       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       1.66       11/9/16 0:53	1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 0:53
Lichorobenzene         U         10.00         U         2.17         11/9/16 0:53           Ethylbenzene         U         10.00         U         2.30         11/9/16 0:53           50 & m-Xylene         27.0         10.00         6.22         2.30         11/9/16 0:53           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 0:53           o-Xylene         U         10.00         U         2.30         11/9/16 0:53           o-Xylene         U         10.00         U         2.30         11/9/16 0:53           o,2,3-Trichloropropane         U         10.00         U         2.03         11/9/16 0:53           sopropylbenzene         U         10.00         U         2.03         11/9/16 0:53           o,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           o,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           o,2-Dichlorobenzene         U         10.00         U         2.03         11/9/16 0:53           o,2-Trichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           o,2-A-Trichlorobe	Tetrachloroethene	U	10.00	U	1.47	11/9/16 0:53
Ethylbenzene         U         10.00         U         2.30         11/9/16 0:53           o & m-Xylene         27.0         10.00         6.22         2.30         11/9/16 0:53           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 0:53           >-Xylene         U         10.00         U         2.30         11/9/16 0:53           1,2,3-Trichloropropane         U         10.00         U         2.30         11/9/16 0:53           3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,2-Dichlorobenzene         U         10.00         U         2.03         11/9/16 0:53           1,2-A-Trichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           1,2,4-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53	1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 0:53
b & m-Xylene         27.0         10.00         6.22         2.30         11/9/16 0:53           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 0:53           b-Xylene         U         10.00         U         2.30         11/9/16 0:53           b-Xylene         U         10.00         U         2.30         11/9/16 0:53           b-Xylene         U         10.00         U         2.30         11/9/16 0:53           sopropylbenzene         U         10.00         U         2.03         11/9/16 0:53           sopropylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           1,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           1,2-A-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53           1,2,3-Trichlorobenzene	Chlorobenzene	U	10.00	U	2.17	11/9/16 0:53
1,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 0:53XyleneU10.00U2.3011/9/16 0:53XyleneU10.00U1.6611/9/16 0:53sopropylbenzeneU10.00U2.0311/9/16 0:53sopropylbenzeneU10.00U2.0311/9/16 0:531,3,5-TrimethylbenzeneU10.00U2.0311/9/16 0:531,2,4-TrimethylbenzeneU10.00U2.0311/9/16 0:531,3-DichlorobenzeneU10.00U1.6611/9/16 0:531,4-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.3511/9/16 0:531,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,3-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,3-TrichlorobenzeneU10.00U1.3511/9/16 0:532-MethylnaphthaleneU10.00U1.7211/9/16 0:533-DichlorobenzeneU10.00U1.7211/9/16 0:532-DCA-d49470-130A1611083811/9/16 0:53Foluene-d810370-130A1611083811/9/16 0:53	Ethylbenzene	U	10.00	U	2.30	11/9/16 0:53
-XyleneU10.00U2.3011/9/16 0:531,2,3-TrichloropropaneU10.00U1.6611/9/16 0:53sopropylbenzeneU10.00U2.0311/9/16 0:531,3,5-TrimethylbenzeneU10.00U2.0311/9/16 0:531,2,4-TrimethylbenzeneU10.00U2.0311/9/16 0:531,3-DichlorobenzeneU10.00U2.0311/9/16 0:531,4-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.6611/9/16 0:531,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,3-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,3-TrichlorobenzeneU10.00U1.3511/9/16 0:532-MethylnaphthaleneU10.00U1.7211/9/16 0:533-DichlorobenzeneU10.00U1.7211/9/16 0:533-DichlorobenzeneU10.00U1.6511/9/16 0:531,2,3-TrichlorobenzeneU10.00U1.7211/9/16 0:532-MethylnaphthaleneU10.00U1.7211/9/16 0:533-DichlorobenzeneU10.00U1.7211/9/16 0:533-DichlorobenzeneU	p & m-Xylene	27.0	10.00	6.22	2.30	11/9/16 0:53
1,2,3-TrichloropropaneU10.00U1.6611/9/16 0:53sopropylbenzeneU10.00U2.0311/9/16 0:531,3,5-TrimethylbenzeneU10.00U2.0311/9/16 0:531,2,4-TrimethylbenzeneU10.00U2.0311/9/16 0:531,3-DichlorobenzeneU10.00U2.0311/9/16 0:531,4-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.6611/9/16 0:531,2-DichlorobenzeneU10.00U1.6611/9/16 0:531,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:531,2,3-TrichlorobenzeneU10.00U1.3511/9/16 0:532-MethylnaphthaleneU10.00U1.7211/9/16 0:53SURROGATESPercent RecoveryLimitsLab File IDCompleted1,2-DCA-d49470-130A1611083811/9/16 0:53Foluene-d810370-130A1611083811/9/16 0:53	1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 0:53
sopropylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 0:53           1,3-Dichlorobenzene         U         10.00         U         2.03         11/9/16 0:53           1,4-Dichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           1,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           1,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 0:53           1,2-A-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53           2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 0:53           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed	o-Xylene	U	10.00	U	2.30	11/9/16 0:53
1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 0:53         1,3-Dichlorobenzene       10.06       10.00       1.67       1.66       11/9/16 0:53         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         2,-Methylnaphthalene       U       10.00       U       1.72       11/9/16 0:53         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       94       70-130       A16110838       11/9/16 0:53     <	1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 0:53
U10.00U2.0311/9/16 0:53,3-Dichlorobenzene10.0610.001.671.6611/9/16 0:53,4-DichlorobenzeneU10.00U1.6611/9/16 0:53,2-DichlorobenzeneU10.00U1.6611/9/16 0:53,2-DichlorobenzeneU10.00U1.6611/9/16 0:53,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53,2,4-TrichlorobenzeneU10.00U1.3511/9/16 0:53,2,3-TrichlorobenzeneU10.00U1.3511/9/16 0:53,2,3-TrichlorobenzeneU10.00U1.7211/9/16 0:53,2-MethylnaphthaleneU10.00U1.7211/9/16 0:53SURROGATESPercent Recovery LimitsLab File IDCompleted,2-DCA-d49470-130A1611083811/9/16 0:5311/9/16 0:53	Isopropylbenzene	U	10.00	U	2.03	11/9/16 0:53
1,3-Dichlorobenzene       10.06       10.00       1.67       1.66       11/9/16 0:53         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 0:53         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       94       70-130       A16110838       11/9/16 0:53         Foluene-d8       103       70-130       A16110838       11/9/16 0:53	1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 0:53
1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 0:53         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         Naphthalene       19.48       10.00       3.72       1.91       11/9/16 0:53         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         2Methylnaphthalene       U       10.00       U       1.72       11/9/16 0:53         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       94       70-130       A16110838       11/9/16 0:53         Foluene-d8       103       70-130       A16110838       11/9/16 0:53	1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 0:53
U       10.00       U       1.66       11/9/16 0:53         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         Naphthalene       19.48       10.00       3.72       1.91       11/9/16 0:53         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         2,-Methylnaphthalene       U       10.00       U       1.72       11/9/16 0:53         8URROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       94       70-130       A16110838       11/9/16 0:53         Foluene-d8       103       70-130       A16110838       11/9/16 0:53	1,3-Dichlorobenzene	10.06	10.00	1.67	1.66	11/9/16 0:53
U       10.00       U       1.35       11/9/16 0:53         Naphthalene       19.48       10.00       3.72       1.91       11/9/16 0:53         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 0:53         2Methylnaphthalene       U       10.00       U       1.35       11/9/16 0:53         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       94       70-130       A16110838       11/9/16 0:53         Foluene-d8       103       70-130       A16110838       11/9/16 0:53	1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 0:53
Naphthalene         19.48         10.00         3.72         1.91         11/9/16 0:53           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53           2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 0:53           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         94         70-130         A16110838         11/9/16 0:53           Foluene-d8         103         70-130         A16110838         11/9/16 0:53	1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 0:53
Naphthalene         19.48         10.00         3.72         1.91         11/9/16 0:53           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 0:53           2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 0:53           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         94         70-130         A16110838         11/9/16 0:53           Foluene-d8         103         70-130         A16110838         11/9/16 0:53	1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 0:53
U       10.00       U       1.35       11/9/16 0:53         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 0:53         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       94       70-130       A16110838       11/9/16 0:53         Foluene-d8       103       70-130       A16110838       11/9/16 0:53	Naphthalene	19.48	10.00	3.72	1.91	11/9/16 0:53
Percent Recovery         Limits         Lab File ID         Completed           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         94         70-130         A16110838         11/9/16 0:53           Foluene-d8         103         70-130         A16110838         11/9/16 0:53	1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 0:53
SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         94         70-130         A16110838         11/9/16 0:53           Foluene-d8         103         70-130         A16110838         11/9/16 0:53	2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 0:53
9470-130A1611083811/9/16 0:53Foluene-d810370-130A1611083811/9/16 0:53	· ·					
9470-130A1611083811/9/16 0:53Foluene-d810370-130A1611083811/9/16 0:53	SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
	1,2-DCA-d4	94		A16110838		
	Toluene-d8	103	70-130	A16110838		11/9/16 0:53
	Bromofluorobenzene	108	70-130	A16110838		11/9/16 0:53

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110840
Beacon Sample ID:	GO167057
Client ID/Sampling Location:	SV-30A
Date Time Collected:	10/27/16 2:35 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/9/2016
Analysis Time:	1:39:00 AM
Beacon Job Number:	3588

Vinyl Chloride         U         10.00         U         3.91         11/9/16         139           1,1-Dichloroethene         U         10.00         U         2.52         11/9/16         139           rans-1,2-Dichloroethene         U         10.00         U         2.52         11/9/16         139           dethyl-t-butyl ether         U         10.00         U         2.52         11/9/16         139           is-1,2-Dichloroethane         U         10.00         U         2.47         11/9/16         139           1,1-Dichloroethane         U         10.00         U         2.47         11/9/16         139           1,2-Dichloroethane         U         10.00         U         2.47         11/9/16         139           1,2-Dichloroethane         U         10.00         U         1.83         11/9/16         139           1,2-Dichloroethane         U         10.00         U         1.83         11/9/16         139           1,2-Trichloroethane         U         10.00         U         1.83         11/9/16         139           1,2-Trichloroethane         U         10.00         U         1.83         11/9/16         139		Results	LOQ	Results	LOQ	
J. Dichloroethene         U         10.00         U         2.52         11/9/16 1:39           J. J. 2-Trichloroethene         U         10.00         U         2.52         11/9/16 1:39           mash J. 2-Dichloroethene         U         10.00         U         2.52         11/9/16 1:39           yl-Dichloroethane         U         10.00         U         2.77         11/9/16 1:39           yl-Dichloroethane         U         10.00         U         2.52         11/9/16 1:39           yl-Dichloroethane         U         10.00         U         2.52         11/9/16 1:39           yl-Dichloroethane         U         10.00         U         2.53         11/9/16 1:39           yl-Dichloroethane         U         10.00         U         1.83         11/9/16 1:39           gl-Dichloroethane         U         10.00         U         1.83         11/9/16 1:39           gl-Dic	COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
1, 2-Trichloroethane (Fr. 113)       U       10.00       U       1.30       11/9/16 1:39         rans-1, 2-Dichloroethane       U       10.00       U       2.52       11/9/16 1:39         dethyl-t-butyl ether       U       10.00       U       2.77       11/9/16 1:39         i:s-1, 2-Dichloroethane       U       10.00       U       2.47       11/9/16 1:39         2-Dichloroethane       U       10.00       U       2.52       11/9/16 1:39         2-Dichloroethane       U       10.00       U       2.52       11/9/16 1:39         2-Dichloroethane       U       10.00       U       2.47       11/9/16 1:39         2-Dichloroethane       U       10.00       U       1.83       11/9/16 1:39         2-Dichloroethane       U       10.00       U       3.13       11/9/16 1:39         Carbon Tetrachloride       U       10.00       U       3.13       11/9/16 1:39         Ganzene       U       10.00       U       1.83       11/9/16 1:39         I,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 1:39         I,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 1:39	Vinyl Chloride	U	10.00	U	3.91	11/9/16 1:39
rans-1,2-DichloroetheneU10.00U2.5211/9/16 1:39Vethyl-t-butyl etherU10.00U2.7711/9/16 1:39i,1-DichloroethaneU10.00U2.4711/9/16 1:39is:1,2-DichloroethaneU10.00U2.5211/9/16 1:392.DoroformU10.00U2.5211/9/16 1:391,2-DichloroethaneU10.00U2.4711/9/16 1:392.arbon TetrachlorideU10.00U1.8311/9/16 1:39SanzeneU10.00U1.8611/9/16 1:39GrichloroethaneU10.00U1.8311/9/16 1:39SenzeneU10.00U1.8311/9/16 1:39Guene42.7610.00U1.8311/9/16 1:39FolkoroethaneU10.00U1.352.6511/9/16 1:39FolkoroethaneU10.00U1.4611/9/16 1:39Colure42.7610.00U1.4611/9/16 1:39ColureU10.00U1.4611/9/16 1:39ChloroethaneU10.00U2.1711/9/16 1:39ChlorobenzeneU10.00U2.3011/9/16 1:39SchloroethaneU10.00U2.0311/9/16 1:39J,1,2-CritachloroethaneU10.00U2.0311/9/16 1:39SchlorobenzeneU10.00U2.0311/9/16 1:39J,2,3-Tric	1,1-Dichloroethene	-		U		
Methyl-t-butyl ether       U       10.00       U       2.77       11/9/16 1:39         1,1-Dichloroethane       U       10.00       U       2.47       11/9/16 1:39         Sis-1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 1:39         Z-Dichloroethane       U       10.00       U       2.52       11/9/16 1:39         Z-Dichloroethane       U       10.00       U       2.47       11/9/16 1:39         Zarbon Tetrachloride       U       10.00       U       1.83       11/9/16 1:39         Sarchon Tetrachloride       U       10.00       U       1.86       11/9/16 1:39         Grichoroethane       U       10.00       U       1.86       11/9/16 1:39         J,1-2-Trichloroethane       U       10.00       U       1.83       11/9/16 1:39         Goluene <b>42.76</b> 10.00       U       1.83       11/9/16 1:39         Coluene <b>42.76</b> 10.00       U       1.46       11/9/16 1:39         Chorobenzene       U       10.00       U       1.47       11/9/16 1:39         Chorobenzene       U       10.00       U       2.47       11/9/16 1:39         Sc	1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 1:39
J. DichloroethaneU10.00U2.4711/9/16 1:39ShloroformU10.00U2.5211/9/16 1:39ChloroformU10.00U2.0511/9/16 1:39J. 2-DichloroethaneU10.00U2.4711/9/16 1:39J. 1, 1-TrichloroethaneU10.00U1.8311/9/16 1:39Carbon TetrachlorideU10.00U3.1311/9/16 1:39BarzeneU10.00U3.1311/9/16 1:39FrichloroethaneU10.00U1.8611/9/16 1:39FrichloroethaneU10.00U1.8311/9/16 1:39FrichloroethaneU10.00U1.8311/9/16 1:39J. 2-TrichloroethaneU10.00U1.8311/9/16 1:39J. 2-Dibromoethane (EDB)U10.00U1.3011/9/16 1:39J. 1, 2-TetrachloroethaneU10.00U1.4611/9/16 1:39J. 1, 2-TetrachloroethaneU10.00U2.1711/9/16 1:39ChlorobenzeneU10.00U2.3011/9/16 1:39ChlorobenzeneU10.00U2.3011/9/16 1:39J. 1, 2-TetrachloroethaneU10.00U2.3011/9/16 1:39J. 1, 2-ZettrachloroethaneU10.00U2.3011/9/16 1:39J. 2, 2-TetrachloroephaneU10.00U2.0311/9/16 1:39J. 2, 3-TrichloropopaneU10.00<	trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 1:39
is 1, 2-DichloroetheneU10.00U2.5211/9/16 1:39ChloroformU10.00U2.0511/9/16 1:391, 2-DichloroethaneU10.00U2.4711/9/16 1:391, 1, 1-TrichloroethaneU10.00U1.5911/9/16 1:39Carbon TetrachlorideU10.00U3.1311/9/16 1:39SenzeneU10.00U3.1311/9/16 1:39PrichloroetheneU10.00U1.8611/9/16 1:391, 4-Dioxane11.010.00U1.8311/9/16 1:391, 2-TrichloroethaneU10.00U1.8311/9/16 1:39Foluene42.7610.0011.352.6511/9/16 1:391, 2-TrichloroethaneU10.00U1.4711/9/16 1:391, 1, 2-TetrachloroethaneU10.00U1.4611/9/16 1:391, 1, 2-TetrachloroethaneU10.00U1.4611/9/16 1:391, 1, 2-TetrachloroethaneU10.00U2.3011/9/16 1:391, 1, 2-TetrachloroethaneU10.00U2.3011/9/16 1:391, 1, 2-TetrachloroethaneU10.00U2.3011/9/16 1:391, 1, 2-TetrachloroethaneU10.00U2.3011/9/16 1:391, 2, 2-TetrachloroethaneU10.00U2.0311/9/16 1:391, 2, 2-TetrachloroethaneU10.00U2.0311/9/16 1:391, 3, 5-T	Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 1:39
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 1:39
1.2-Dichloroethane       U       10.00       U       2.47       11/9/16       1:39         1.1,1-Trichloroethane       U       10.00       U       1.83       11/9/16       1:39         Carbon Tetrachloride       U       10.00       U       1.59       11/9/16       1:39         Benzene       U       10.00       U       3.13       11/9/16       1:39         Senzene       U       10.00       U       3.13       11/9/16       1:39         Frichloroethane       U       10.00       U       1.86       11/9/16       1:39         J,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16       1:39         Coluene       42.76       10.00       U       1.30       11/9/16       1:39         Coluene       U       10.00       U       1.30       11/9/16       1:39         Coluene       U       10.00       U       1.46       11/9/16       1:39         Coluene       U       10.00       U       2.46       11/9/16       1:39         Coluene       U       10.00       U       2.46       11/9/16       1:39         Chorobenzene       U<	cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 1:39
1, 1-TrichloroethaneU10.00U1.8311/9/161:39Carbon TetrachlorideU10.00U1.5911/9/161:39BenzeneU10.00U3.1311/9/161:39DirichloroetheneU10.00U1.8611/9/161:391,4-Dioxane11.010.00U1.8311/9/161:39colume42.7610.00U1.8311/9/161:39colume42.7610.00U1.3011/9/161:39colume2.7610.00U1.3011/9/161:39columeU10.00U1.4711/9/161:39columeU10.00U1.4711/9/161:39columeU10.00U1.4611/9/161:39columeU10.00U2.3011/9/161:39columeU10.00U2.3011/9/161:39columeU10.00U2.3011/9/161:39columeU10.00U2.3011/9/161:39columeU10.00U2.3011/9/161:39columeU10.00U2.0311/9/161:39columeU10.00U2.0311/9/161:39columeU10.00U2.0311/9/161:39columeU10.00U2.0311/9/16 </td <td>Chloroform</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.05</td> <td>11/9/16 1:39</td>	Chloroform	U	10.00	U	2.05	11/9/16 1:39
Carbon Tetrachloride         U         10.00         U         1.59         11/9/16 1:39           Senzene         U         10.00         U         3.13         11/9/16 1:39           Frichloroethene         U         10.00         U         1.86         11/9/16 1:39           Frichloroethane         U         10.00         3.05         2.77         11/9/16 1:39           J_2-Trichloroethane         U         10.00         U         1.83         11/9/16 1:39           Foluene         42.76         10.00         U         1.30         11/9/16 1:39           Fetrachloroethene         U         10.00         U         1.47         11/9/16 1:39           Chlorobenzene         U         10.00         U         1.47         11/9/16 1:39           Chlorobenzene         U         10.00         U         2.47         11/9/16 1:39           Chlorobenzene         U         10.00         U         2.30         11/9/16 1:39           Schylbenzene         U         10.00         U         2.30         11/9/16 1:39           J_1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 1:39           J_2,2-Tetrachloroethane <td< td=""><td>1,2-Dichloroethane</td><td>U</td><td>10.00</td><td>U</td><td>2.47</td><td>11/9/16 1:39</td></td<>	1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 1:39
BenzeneU10.00U3.1311/9/16 1:39FrichloroetheneU10.00U1.8611/9/16 1:39J.4-Dioxane11.010.003.052.7711/9/16 1:39J.1,2-TrichloroethaneU10.00U1.8311/9/16 1:39Foluene42.7610.00U1.3011/9/16 1:39J.2-Dioromoethane (EDB)U10.00U1.3011/9/16 1:39J.2-DioromoethaneU10.00U1.4711/9/16 1:39FetrachloroethaneU10.00U1.4611/9/16 1:39ChlorobenzeneU10.00U2.1711/9/16 1:39EthylbenzeneU10.00U2.3011/9/16 1:39Schylene23.310.005.372.3011/9/16 1:39J.2,2-TetrachloroethaneU10.00U2.3011/9/16 1:39J.2,2-TetrachloroethaneU10.00U2.3011/9/16 1:39J.2,2-TetrachloroethaneU10.00U2.3011/9/16 1:39J.3,5-TrinethylbenzeneU10.00U2.0311/9/16 1:39J.3,5-TrinethylbenzeneU10.00U2.0311/9/16 1:39J.3,5-TrinethylbenzeneU10.00U2.0311/9/16 1:39J.2,4-TrichlorobenzeneU10.00U1.6611/9/16 1:39J.2,2-DichlorobenzeneU10.00U1.6611/9/16 1:39J.2,2-DichlorobenzeneU10.00	1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 1:39
FrichloroetheneU10.00U1.8611/9/16 1:391,4-Dioxane11.010.003.052.7711/9/16 1:39FolueneU10.00U1.8311/9/16 1:39Foluene42.7610.00U1.352.6511/9/16 1:392,2-Dibromoethane (EDB)U10.00U1.3011/9/16 1:39retrachloroetheneU10.00U1.4711/9/16 1:391,1,1,2-TetrachloroethaneU10.00U2.1711/9/16 1:392,1,1,2-TetrachloroethaneU10.00U2.3011/9/16 1:392,1,1,2-TetrachloroethaneU10.00U2.3011/9/16 1:392,1,2,2-TetrachloroethaneU10.00U2.3011/9/16 1:392,3-TrichloropthaneU10.00U2.3011/9/16 1:392,3-TrichloropthaneU10.00U2.3011/9/16 1:392,3-TrinethylbenzeneU10.00U2.0311/9/16 1:392,3-TrinethylbenzeneU10.00U2.0311/9/16 1:393,3-DichlorobenzeneU10.00U2.0311/9/16 1:393,2-DichlorobenzeneU10.00U1.6611/9/16 1:393,2-DichlorobenzeneU10.00U1.6611/9/16 1:393,2-DichlorobenzeneU10.00U1.6611/9/16 1:393,2-DichlorobenzeneU10.00U1.6611/9/16 1:393,2-Dichlorobenzene	Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 1:39
1.4-Dioxane11.010.003.052.7711/9/16 1:39I,1,2-TrichloroethaneU10.00U1.8311/9/16 1:39Foluene42.7610.0011.352.6511/9/16 1:391,2-Dibromoethane (EDB)U10.00U1.3011/9/16 1:39FetrachloroethaneU10.00U1.4711/9/16 1:39FetrachloroethaneU10.00U1.4611/9/16 1:39ChlorobenzeneU10.00U2.1711/9/16 1:39ChlorobenzeneU10.00U2.3011/9/16 1:39ChlorobenzeneU10.00U2.3011/9/16 1:39StylbenzeneU10.00U2.3011/9/16 1:39 $(1,2,2)$ -TetrachloroethaneU10.00U2.3011/9/16 1:39 $(2,2)$ -TetrachloroethaneU10.00U2.3011/9/16 1:39 $(2,2)$ -TetrachloroethaneU10.00U2.3011/9/16 1:39 $(2,3)$ -TrichloropropaneU10.00U2.0311/9/16 1:39 $(2,3)$ -TrinethylbenzeneU10.00U2.0311/9/16 1:39 $(2,4)$ -TrimethylbenzeneU10.00U1.6611/9/16 1:39 $(2,4)$ -TrimethylbenzeneU10.00U1.6611/9/16 1:39 $(2,4)$ -TrichlorobenzeneU10.00U1.6611/9/16 1:39 $(2,4)$ -TrichlorobenzeneU10.00U1.3511/9/16 1:39 $(2,4)$ -Trichl	Benzene	U	10.00	U	3.13	11/9/16 1:39
U10.00U1.8311/9/161:39Foluene <b>42.76</b> 10.00 <b>11.35</b> 2.6511/9/161:39ColueneU10.00U1.3011/9/161:39ColueneU10.00U1.4711/9/161:39Centro ethaneU10.00U1.4711/9/161:39FetrachloroethaneU10.00U1.4611/9/161:39ChlorobenzeneU10.00U2.1711/9/161:39ChlorobenzeneU10.00U2.3011/9/161:39ChlorobenzeneU10.00U2.3011/9/161:39ChlorobenzeneU10.00U2.3011/9/161:39ChlorobenzeneU10.00U2.3011/9/161:39ChlorobenzeneU10.00U2.3011/9/161:39ChlorobenzeneU10.00U2.0311/9/161:39ChlorobenzeneU10.00U2.0311/9/161:39ChlorobenzeneU10.00U2.0311/9/161:39ChlorobenzeneU10.00U2.0311/9/161:39ChlorobenzeneU10.00U2.0311/9/161:39ChlorobenzeneU10.00U1.6611/9/161:39ChlorobenzeneU10.00U1.3511/9/161:39Chlorobenzene <t< td=""><td>Trichloroethene</td><td>U</td><td>10.00</td><td>U</td><td>1.86</td><td>11/9/16 1:39</td></t<>	Trichloroethene	U	10.00	U	1.86	11/9/16 1:39
Visite         42.76         10.00         11.35         2.65         11/9/16 1:39           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 1:39           Fetrachloroethene         U         10.00         U         1.47         11/9/16 1:39           1,1,1,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 1:39           2.hlyDenzene         U         10.00         U         2.17         11/9/16 1:39           2.hlyBenzene         U         10.00         U         2.30         11/9/16 1:39           2.hyBenzene         U         10.00         U         2.30         11/9/16 1:39           2.,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 1:39           2.,3-Trichloropropane         U         10.00         U         2.03         11/9/16 1:39           3.,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 1:39           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 1:39           1,2,4-Trimethylbenzene         U         10.00         U         1.66         11/9/16 1:39           <	1,4-Dioxane	11.0	10.00	3.05	2.77	11/9/16 1:39
U10.00U1.3011/9/16 1:39FetrachloroethaneU10.00U1.4711/9/16 1:39I,1,2-TetrachloroethaneU10.00U1.4611/9/16 1:39ChlorobenzeneU10.00U2.1711/9/16 1:39EthylbenzeneU10.00U2.3011/9/16 1:39SthylbenzeneU10.00U2.3011/9/16 1:39SthylbenzeneU10.00U2.3011/9/16 1:39J,1,2,2-TetrachloroethaneU10.00U2.3011/9/16 1:39SyperopylbenzeneU10.00U2.3011/9/16 1:39J,2,3-TrichloropropaneU10.00U2.0311/9/16 1:39J,3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:39J,2,4-TrimethylbenzeneU10.00U2.0311/9/16 1:39J,2,4-TrimethylbenzeneU10.00U1.6611/9/16 1:39J,2-DichlorobenzeneU10.00U1.6611/9/16 1:39J,2-A-TrichlorobenzeneU10.00U1.3511/9/16 1:39J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39J,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39J,2,4-TrichlorobenzeneU10.00U<	1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 1:39
TetrachloroetheneU10.00U1.4711/9/16 1:391,1,2-TetrachloroethaneU10.00U1.4611/9/16 1:39ChlorobenzeneU10.00U2.1711/9/16 1:39EthylbenzeneU10.00U2.3011/9/16 1:39SthylbenzeneU10.00U2.3011/9/16 1:391,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 1:39-XyleneU10.00U2.3011/9/16 1:39-XyleneU10.00U2.3011/9/16 1:39,2,3-TrichloropropaneU10.00U2.0311/9/16 1:39,3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:39,3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:39,3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:39,3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:39,2,4-TrimethylbenzeneU10.00U1.6611/9/16 1:39,2,4-TrimethylbenzeneU10.00U1.6611/9/16 1:39,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39,2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:39,2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:39,2,3-TrichlorobenzeneU10.00 <td>Toluene</td> <td>42.76</td> <td>10.00</td> <td>11.35</td> <td>2.65</td> <td>11/9/16 1:39</td>	Toluene	42.76	10.00	11.35	2.65	11/9/16 1:39
U10.00U1.4611/9/16 1:39ChlorobenzeneU10.00U2.1711/9/16 1:39EthylbenzeneU10.00U2.3011/9/16 1:39D & m-Xylene <b>23.3</b> 10.00 <b>5.37</b> 2.3011/9/16 1:39J, 1, 2, 2-TetrachloroethaneU10.00U1.4611/9/16 1:39>-XyleneU10.00U2.3011/9/16 1:39J, 2, 3-TrichloropropaneU10.00U2.3011/9/16 1:39sopropylbenzeneU10.00U2.0311/9/16 1:39J, 3, 5-TrimethylbenzeneU10.00U2.0311/9/16 1:39J, 2, 4-TrimethylbenzeneU10.00U2.0311/9/16 1:39J, 4-DichlorobenzeneU10.00U1.6611/9/16 1:39J, 2-DichlorobenzeneU10.00U1.6611/9/16 1:39J, 2-DichlorobenzeneU10.00U1.6611/9/16 1:39J, 2-DichlorobenzeneU10.00U1.6611/9/16 1:39J, 2-DichlorobenzeneU10.00U1.3511/9/16 1:39J, 2, 3-TrichlorobenzeneU10.00U1.3511/9/16 1:39Suphthalene13.2610.002.531.9111/9/16 1:39SuphthaleneU10.00U1.3511/9/16 1:39CourseU10.00U1.7211/9/16 1:39CourseU10.00U1.7211/9/16 1:39<	1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 1:39
ChlorobenzeneU10.00U2.1711/9/16 1:39EthylbenzeneU10.00U2.3011/9/16 1:39D & m-Xylene <b>23.3</b> 10.00 <b>5.37</b> 2.3011/9/16 1:391,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 1:39D-XyleneU10.00U2.3011/9/16 1:39J,2,3-TrichloropropaneU10.00U2.0311/9/16 1:39sopropylbenzeneU10.00U2.0311/9/16 1:39J,3-S-TrimethylbenzeneU10.00U2.0311/9/16 1:39J,2,4-TrimethylbenzeneU10.00U2.0311/9/16 1:39J,2-DichlorobenzeneU10.00U1.6611/9/16 1:39J,2-DichlorobenzeneU10.00U1.6611/9/16 1:39J,2-TrichlorobenzeneU10.00U1.6611/9/16 1:39J,2-TrichlorobenzeneU10.00U1.3511/9/16 1:39J,2-TrichlorobenzeneU10.00U1.3511/9/16 1:39L,2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:39SURROGATESPercent RecoveryLimitsLab File IDCompletedL-DCA-d49370-130A1611084011/9/16 1:39Foluene-d810370-130A1611084011/9/16 1:39	Tetrachloroethene	U	10.00	U	1.47	11/9/16 1:39
EthylbenzeneU10.00U2.3011/9/16 1:390 & m-Xylene <b>23.3</b> 10.00 <b>5.37</b> 2.3011/9/16 1:391,2,2-TetrachloroethaneU10.00U1.4611/9/16 1:39-XyleneU10.00U2.3011/9/16 1:391,2,2-TrichloropropaneU10.00U2.0311/9/16 1:391,2,3-TrichloropropaneU10.00U2.0311/9/16 1:391,3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:391,2,4-TrimethylbenzeneU10.00U2.0311/9/16 1:391,3-DichlorobenzeneU10.00U1.6611/9/16 1:391,2-DichlorobenzeneU10.00U1.6611/9/16 1:391,2-DichlorobenzeneU10.00U1.6611/9/16 1:391,2,4-TrichlorobenzeneU10.00U1.6611/9/16 1:391,2,4-TrichlorobenzeneU10.00U1.6611/9/16 1:391,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:391,2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:391,2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:391,2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:392,3-TrichlorobenzeneU10.00U1.3511/9/16 1:392,2-DCA-d49370-130A1611084011/9/16 1:39Foluene-d8103	1,1,1,2-Tetrachloroethane	-	10.00	U	1.46	11/9/16 1:39
b & m-Xylene       23.3       10.00       5.37       2.30       11/9/16 1:39         1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 1:39         p-Xylene       U       10.00       U       2.30       11/9/16 1:39         p-Xylene       U       10.00       U       2.30       11/9/16 1:39         y-Xylene       U       10.00       U       2.30       11/9/16 1:39         y-Xylene       U       10.00       U       2.03       11/9/16 1:39         y-Xylene       U       10.00       U       1.66       11/9/16 1:39         y-Xylene       U       10.00       U       1.66       11/9/16 1:39         y-Zylene       U       10.00       U       1.35       11/9/16 1:39         y-Zylene       U       10.00       U       1.35	Chlorobenzene	U	10.00	U	2.17	11/9/16 1:39
U10.00U1.4611/9/16 1:39-XyleneU10.00U2.3011/9/16 1:39-XyleneU10.00U2.3011/9/16 1:39.2,3-TrichloropropaneU10.00U2.0311/9/16 1:39sopropylbenzeneU10.00U2.0311/9/16 1:39.3,5-TrimethylbenzeneU10.00U2.0311/9/16 1:39.2,4-TrimethylbenzeneU10.00U2.0311/9/16 1:39.3-DichlorobenzeneU10.00U1.6611/9/16 1:39.3-DichlorobenzeneU10.00U1.6611/9/16 1:39.3-DichlorobenzeneU10.00U1.6611/9/16 1:39.4-DichlorobenzeneU10.00U1.6611/9/16 1:39.2-DichlorobenzeneU10.00U1.3511/9/16 1:39.2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39.2,4-TrichlorobenzeneU10.00U1.3511/9/16 1:39.2,2-TrichlorobenzeneU10.00U1.3511/9/16 1:39.2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:39.2,3-TrichlorobenzeneU10.00U1.3511/9/16 1:39.2,2-TrichlorobenzeneU10.00U1.3511/9/16 1:39.2,2-TrichlorobenzeneU10.00U1.7211/9/16 1:39.2,2-DCA-d49370-130A1611084011/9/16 1:3	Ethylbenzene	U	10.00	U	2.30	11/9/16 1:39
VXylene       U       10.00       U       2.30       11/9/16 1:39         1,2,3-Trichloropropane       U       10.00       U       1.66       11/9/16 1:39         sopropylbenzene       U       10.00       U       2.03       11/9/16 1:39         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 1:39         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 1:39         1,3-Dichlorobenzene       U       10.00       U       2.03       11/9/16 1:39         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39 <td>p &amp; m-Xylene</td> <td>23.3</td> <td>10.00</td> <td>5.37</td> <td>2.30</td> <td>11/9/16 1:39</td>	p & m-Xylene	23.3	10.00	5.37	2.30	11/9/16 1:39
L2,3-Trichloropropane       U       10.00       U       1.66       11/9/16       1:39         sopropylbenzene       U       10.00       U       2.03       11/9/16       1:39         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16       1:39         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16       1:39         1,3-Dichlorobenzene       U       10.00       U       2.03       11/9/16       1:39         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         1,2-A-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         2,-Methylnaphthalene       U       10.00       U       1.72 <td< td=""><td>1,1,2,2-Tetrachloroethane</td><td>U</td><td>10.00</td><td>U</td><td>1.46</td><td>11/9/16 1:39</td></td<>	1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 1:39
sopropylbenzene         U         10.00         U         2.03         11/9/16         1:39           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16         1:39           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16         1:39           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16         1:39           1,3-Dichlorobenzene         U         10.00         U         1.66         11/9/16         1:39           1,4-Dichlorobenzene         U         10.00         U         1.66         11/9/16         1:39           1,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16         1:39           1,2,4-Trichlorobenzene         U         10.00         U         1.35         11/9/16         1:39           1,2,3-Trichlorobenzene         U         10.00         Z.53         1.91         11/9/16         1:39           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16         1:39           2,-Methylnaphthalene         U         10.00         U         1.72         11/9/16	o-Xylene	U	10.00	U	2.30	11/9/16 1:39
1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 1:39         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 1:39         1,3-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 1:39         1,2-Dichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         2,-Methylnaphthalene       U       10.00       U       1.72       11/9/16 1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110840       11/9/16 1:39	1,2,3-Trichloropropane		10.00	U	1.66	11/9/16 1:39
U       10.00       U       2.03       11/9/16       1:39         J.3-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.4-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.2.4-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         J.2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         Vaphthalene       13.26       10.00       2.53       1.91       11/9/16       1:39         J.2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         PMethylnaphthalene       U       10.00       U       1.72       11/9/16       1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         J.2-DCA-d4       93       70-130       A16110840       11/9/16       1:39         Foluene-d8	Isopropylbenzene	U	10.00	U	2.03	11/9/16 1:39
U       10.00       U       1.66       11/9/16       1:39         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         2,-Methylnaphthalene       U       10.00       U       1.72       11/9/16       1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110840       11/9/16       1:39         Foluene-d8       103       70-130       A16110840       11/9/16       1:39	1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 1:39
J.4-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.2-A-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         Naphthalene       13.26       10.00       2.53       1.91       11/9/16       1:39         J.2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         J.2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         PMethylnaphthalene       U       10.00       U       1.72       11/9/16       1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         J.2-DCA-d4       93       70-130       A16110840       11/9/16       1:39         Foluene-d8       103       70-130       A16110840       11/9/16       1:39	1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 1:39
J.2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       1:39         J.2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         Naphthalene       13.26       10.00       2.53       1.91       11/9/16       1:39         J.2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         J.2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       1:39         P-Methylnaphthalene       U       10.00       U       1.72       11/9/16       1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         J.2-DCA-d4       93       70-130       A16110840       11/9/16       1:39         Foluene-d8       103       70-130       A16110840       11/9/16       1:39	1,3-Dichlorobenzene	-	10.00	U	1.66	11/9/16 1:39
U       10.00       U       1.35       11/9/16 1:39         Naphthalene       13.26       10.00       2.53       1.91       11/9/16 1:39         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 1:39         2Methylnaphthalene       U       10.00       U       1.35       11/9/16 1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110840       11/9/16 1:39         Foluene-d8       103       70-130       A16110840       11/9/16 1:39	1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 1:39
Naphthalene         13.26         10.00         2.53         1.91         11/9/16 1:39           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 1:39           2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 1:39           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110840         11/9/16 1:39           Foluene-d8         103         70-130         A16110840         11/9/16 1:39	1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 1:39
U       10.00       U       1.35       11/9/16 1:39         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 1:39         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110840       11/9/16 1:39         Foluene-d8       103       70-130       A16110840       11/9/16 1:39	1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 1:39
Defension         U         10.00         U         1.72         11/9/16 1:39           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110840         11/9/16 1:39           Foluene-d8         103         70-130         A16110840         11/9/16 1:39	Naphthalene	13.26	10.00	2.53	1.91	11/9/16 1:39
SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110840         11/9/16 1:39           Foluene-d8         103         70-130         A16110840         11/9/16 1:39	1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 1:39
9370-130A1611084011/9/16 1:39Foluene-d810370-130A1611084011/9/16 1:39	2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 1:39
9370-130A1611084011/9/16 1:39Foluene-d810370-130A1611084011/9/16 1:39						
Foluene-d8         103         70-130         A16110840         11/9/16 1:39	SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
	1,2-DCA-d4	93				
Bromofluorobenzene         107         70-130         A16110840         11/9/16 1:39	Toluene-d8	103	70-130	A16110840		11/9/16 1:39
	Bromofluorobenzene	107	70-130	A16110840		11/9/16 1:39

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110842
Beacon Sample ID:	HO200236
Client ID/Sampling Location:	SV-31A
Date Time Collected:	10/27/16 2:03 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/9/2016
Analysis Time:	2:26:00 AM
Beacon Job Number:	3588
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 2:26
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 2:26
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 2:26
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 2:26
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 2:26
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 2:26
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 2:26
Chloroform	U	10.00	U	2.05	11/9/16 2:26
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 2:26
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 2:26
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 2:26
Benzene	U	10.00	U	3.13	11/9/16 2:26
Trichloroethene	U	10.00	U	1.86	11/9/16 2:26
1,4-Dioxane	20.36	10.00	5.65	2.77	11/9/16 2:26
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 2:26
Toluene	40.32	10.00	10.7	2.65	11/9/16 2:26
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 2:26
Tetrachloroethene	U	10.00	U	1.47	11/9/16 2:26
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 2:26
Chlorobenzene	U	10.00	U	2.17	11/9/16 2:26
Ethylbenzene	U	10.00	U	2.30	11/9/16 2:26
p & m-Xylene	20.18	10.00	4.65	2.30	11/9/16 2:26
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 2:26
o-Xylene	U	10.00	U	2.30	11/9/16 2:26
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 2:26
Isopropylbenzene	U	10.00	U	2.03	11/9/16 2:26
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 2:26
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 2:26
1,3-Dichlorobenzene	U	10.00	U	1.66	11/9/16 2:26
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 2:26
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 2:26
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 2:26
Naphthalene	12.89	10.00	2.46	1.91	11/9/16 2:26
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 2:26
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 2:26
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	92	70-130	A16110842		11/9/16 2:26
Toluene-d8	103	70-130	A16110842		11/9/16 2:26
Bromofluorobenzene	108	70-130	A16110842		11/9/16 2:26

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110844
Beacon Sample ID:	GO164954
Client ID/Sampling Location:	SV-32A
Date Time Collected:	10/27/16 1:36 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/4/2016
Analysis Date:	11/9/2016
Analysis Time:	3:13:00 AM
Beacon Job Number:	3588
	D 1/

1,1,2-Trichlorotrifluoroethane (Fr.113)       U       10.00       U       1.30       11/9/16 3:13         trans-1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 3:13         1,1-Dichloroethane       U       10.00       U       2.77       11/9/16 3:13         1,1-Dichloroethane       U       10.00       U       2.47       11/9/16 3:13         1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 3:13         1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 3:13         1,1-Trichloroethane       U       10.00       U       2.47       11/9/16 3:13         Senzene       U       10.00       U       1.83       11/9/16 3:13         1,1-Trichloroethane       U       10.00       U       3.13       11/9/16 3:13         I,2-Dichloroethane       U       10.00       U       3.13       11/9/16 3:13         1,1,1-Trichloroethane       U       10.00       U       1.83       11/9/16 3:13         1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 3:13         1,1,2-Trichloroethane       U       10.00       U       1.84       11/9/1		Results	LOQ	Results	LOQ	
1,1-DichloroetheneU10.00U2.5211/9/16 3:131,1,2-Trichlorotrifluoroethane (Fr.113)U10.00U1.3011/9/16 3:13Methyl-t-butyl etherU10.00U2.5211/9/16 3:13Methyl-t-butyl etherU10.00U2.7711/9/16 3:131,1-DichloroethaneU10.00U2.4711/9/16 3:13ChloroformU10.00U2.5211/9/16 3:131,2-DichloroethaneU10.00U2.4711/9/16 3:131,1-TrichloroethaneU10.00U1.8311/9/16 3:131,1,1-TrichloroethaneU10.00U1.8311/9/16 3:13BenzeneU10.00U1.8611/9/16 3:131,4-Dixane13.6410.003.792.7711/9/16 3:131,1,2-TrichloroethaneU10.00U1.8311/9/16 3:131,1,2-TrichloroethaneU10.00U1.8311/9/16 3:131,1,2-TrichloroethaneU10.00U1.4711/9/16 3:131,1,2-TetrachloroethaneU10.00U1.4711/9/16 3:13ChlorobenzeneU10.00U2.3011/9/16 3:13L,1,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,1,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,1,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,3-Trichloropopan		ug/m3	ug/m3	ppbv	ppbv	
1,1,2-Trichlorotrifluoroethane (Fr.113)U10.00U1.3011/9/16 3:13trans-1,2-DichloroethaneU10.00U2.5211/9/16 3:13Methyl-butyl etherU10.00U2.7711/9/16 3:13cis-1,2-DichloroethaneU10.00U2.4711/9/16 3:13cis-1,2-DichloroethaneU10.00U2.4711/9/16 3:131,2-DichloroethaneU10.00U2.5211/9/16 3:131,2-DichloroethaneU10.00U2.4711/9/16 3:131,2-DichloroethaneU10.00U2.4711/9/16 3:131,1-TrichloroethaneU10.00U3.1311/9/16 3:13Carbon TetrachlorideU10.00U3.1311/9/16 3:13TrichloroethaneU10.00U3.792.7711/9/16 3:131,1,2-TrichloroethaneU10.00U1.8611/9/16 3:131,2-DichloroethaneU10.00U1.8311/9/16 3:131,1,2-TetrachloroethaneU10.00U1.4711/9/16 3:131,1,2-TetrachloroethaneU10.00U1.4711/9/16 3:131,1,1,2-TetrachloroethaneU10.00U1.4611/9/16 3:131,1,1,2-TetrachloroethaneU10.00U1.4611/9/16 3:131,1,1,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,1,1,2-TetrachloroethaneU10.00U2.30 <td>Vinyl Chloride</td> <td>U</td> <td>10.00</td> <td>U</td> <td>3.91</td> <td>11/9/16 3:13</td>	Vinyl Chloride	U	10.00	U	3.91	11/9/16 3:13
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 3:13
Methyl-t-buyl ether         U         10.00         U         2.77         11/9/16 3:13           1,1-Dichloroethane         U         10.00         U         2.47         11/9/16 3:13           cis-1,2-Dichloroethane         U         10.00         U         2.52         11/9/16 3:13           1,2-Dichloroethane         U         10.00         U         2.05         11/9/16 3:13           1,1-Trichloroethane         U         10.00         U         1.83         11/9/16 3:13           1,1,1-Trichloroethane         U         10.00         U         1.83         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         1.86         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         1.47         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         2.30         11/9/16 3:13	1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 3:13
1,1-Dichloroethane       U       10.00       U       2.47       11/9/16 3:13         cis-1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 3:13         L2-Dichloroethane       U       10.00       U       2.47       11/9/16 3:13         1,2-Dichloroethane       U       10.00       U       2.47       11/9/16 3:13         1,1-Trichloroethane       U       10.00       U       1.83       11/9/16 3:13         Benzene       U       10.00       U       3.13       11/9/16 3:13         Trichloroethene       U       10.00       U       1.86       11/9/16 3:13         1,1,2-Trichloroethane       U       10.00       U       1.86       11/9/16 3:13         1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 3:13         1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 3:13         1,2-Dibromoethane (EDB)       U       10.00       U       1.30       11/9/16 3:13         1,1,2-Tetrachloroethane       U       10.00       U       2.17       11/9/16 3:13         1,1,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 3:13	trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 3:13
cis-1,2-DichloroetheneU10.00U2.5211/9/16 3:13ChloroformU10.00U2.0511/9/16 3:131,2-DichloroethaneU10.00U2.4711/9/16 3:131,1-TrichloroethaneU10.00U1.8311/9/16 3:13Carbon TetrachlorideU10.00U1.8311/9/16 3:13BenzeneU10.00U1.8611/9/16 3:131,1-DixaneU10.00U1.8311/9/16 3:131,1-DixaneU10.00U1.8311/9/16 3:131,2-DirbinoroethaneU10.00U1.8311/9/16 3:131,2-Dirbinoroethane (EDB)U10.00U1.3011/9/16 3:13TetrachloroethaneU10.00U1.3011/9/16 3:131,1,1,2-TetrachloroethaneU10.00U1.4711/9/16 3:131,1,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,1,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TrichloropropaneU10.00U2.0311/9/16 3:131,2,4-Trinethylbenzene	Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 3:13
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 3:13
1,2-DichloroethaneU10.00U2.4711/9/16 3:131,1,1-TrichloroethaneU10.00U1.8311/9/16 3:13Carbon TetrachlorideU10.00U1.5911/9/16 3:13BenzeneU10.00U3.1311/9/16 3:13TrichloroetheneU10.00U1.8611/9/16 3:131,4-Dioxane13.6410.003.792.7711/9/16 3:13Tolucne48.7610.00U1.8311/9/16 3:13TetrachloroethaneU10.00U1.3011/9/16 3:13TetrachloroethaneU10.00U1.3011/9/16 3:13TetrachloroethaneU10.00U1.4611/9/16 3:13ChlorobenzeneU10.00U1.4611/9/16 3:13L1,1,2-TetrachloroethaneU10.00U2.1711/9/16 3:13ChlorobenzeneU10.00U2.3011/9/16 3:13p & m-Xylene22.8910.005.272.3011/9/16 3:13o-XyleneU10.00U1.4611/9/16 3:131,2,3-TrichloroptopaneU10.00U2.0311/9/16 3:131,2,3-TrichloroptopaneU10.00U2.0311/9/16 3:131,3-DichlorobenzeneU10.00U2.0311/9/16 3:131,2,4-TrimethylbenzeneU10.00U2.0311/9/16 3:131,2,4-TrichlorobenzeneU10.00U1.35 <td>cis-1,2-Dichloroethene</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.52</td> <td>11/9/16 3:13</td>	cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 3:13
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Chloroform	U	10.00	U	2.05	11/9/16 3:13
Carbon TetrachlorideU10.00U1.5911/9/16 3:13BenzeneU10.00U3.1311/9/16 3:13BenzeneU10.00U3.1311/9/16 3:13TrichloroetheneU10.00U1.8611/9/16 3:131,12-TrichloroethaneU10.00U1.8311/9/16 3:13Toluene48.7610.00U1.8311/9/16 3:131,2-Dibromoethane (EDB)U10.00U1.4711/9/16 3:13TetrachloroetheneU10.00U1.4711/9/16 3:131,1,12-TetrachloroethaneU10.00U1.4611/9/16 3:13ChlorobenzeneU10.00U2.3011/9/16 3:13EthylbenzeneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TetrachloroethaneU10.00U2.3011/9/16 3:131,2,2-TrichloropropaneU10.00U2.3011/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,2,4-TrimethylbenzeneU10.00U2.0311/9/16 3:131,2-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,4-TrimethylbenzeneU10.00 </td <td>1,2-Dichloroethane</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.47</td> <td>11/9/16 3:13</td>	1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 3:13
Benzene         U         10.00         U         3.13         11/9/16 3:13           Trichloroethene         U         10.00         U         1.86         11/9/16 3:13           1,4-Dioxane         13.64         10.00         3.79         2.77         11/9/16 3:13           1,1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 3:13           Toluene         48.76         10.00         U         1.30         11/9/16 3:13           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 3:13           Tetrachloroethane         U         10.00         U         1.46         11/9/16 3:13           1,1,1,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 3:13           1,1,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 3:13           1,1,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 3:13           1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 3:13           1,2,2-Tetrachloroethane         U         10.00         U         2.03         11/9/16 3:13	1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 3:13
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 3:13
1,4-Dioxane13.6410.003.792.7711/9/16 3:131,1,2-TrichloroethaneU10.00U1.8311/9/16 3:13Toluene48.7610.0012.942.6511/9/16 3:131,2-Dibromoethane (EDB)U10.00U1.3011/9/16 3:13TetrachloroethaneU10.00U1.4711/9/16 3:13TetrachloroethaneU10.00U1.4611/9/16 3:13ChlorobenzeneU10.00U2.1711/9/16 3:13EthylbenzeneU10.00U2.3011/9/16 3:13p & m-Xylene22.8910.005.272.3011/9/16 3:13o-XyleneU10.00U1.4611/9/16 3:131,2,3-TrichloroptaneU10.00U1.6611/9/16 3:13IsopropylbenzeneU10.00U2.0311/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,2-A-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2-A-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2-A-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2-A-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2-A-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2-A-TrichlorobenzeneU1	Benzene	U	10.00	U	3.13	11/9/16 3:13
1,1,2-Trichloroethane       U       10.00       U       1.83       11/9/16 3:13         Toluene       48.76       10.00       12.94       2.65       11/9/16 3:13         1,2-Dibromoethane (EDB)       U       10.00       U       1.30       11/9/16 3:13         Tetrachloroethene       U       10.00       U       1.47       11/9/16 3:13         Chlorobenzene       U       10.00       U       1.47       11/9/16 3:13         Ethylbenzene       U       10.00       U       2.17       11/9/16 3:13         p & m-Xylene       U       10.00       U       2.30       11/9/16 3:13         o-Xylene       U       10.00       U       2.30       11/9/16 3:13         o-Xylene       U       10.00       U       2.30       11/9/16 3:13         1,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 3:13         1,2,3-Trichloroptopane       U       10.00       U       2.30       11/9/16 3:13         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,2	Trichloroethene	U	10.00	U	1.86	11/9/16 3:13
Toluene         48.76         10.00         12.94         2.65         11/9/16 3:13           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 3:13           Tetrachloroethene         U         10.00         U         1.47         11/9/16 3:13           Chlorobenzene         U         10.00         U         1.46         11/9/16 3:13           Chlorobenzene         U         10.00         U         2.17         11/9/16 3:13           Ethylbenzene         U         10.00         U         2.30         11/9/16 3:13           1,1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 3:13           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 3:13           1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/9/16 3:13           1,2,3-Trichloropropane         U         10.00         U         2.03         11/9/16 3:13           1,3-5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 3:13           1,4-Dichlorobenzene         U         10.00         U         2.03         11/9/16 3:13	1,4-Dioxane	13.64	10.00	3.79	2.77	11/9/16 3:13
U       10.00       U       1.30       11/9/16 3:13         Tetrachloroethene       U       10.00       U       1.47       11/9/16 3:13         1,1,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 3:13         Chlorobenzene       U       10.00       U       2.17       11/9/16 3:13         Ethylbenzene       U       10.00       U       2.30       11/9/16 3:13         p & m-Xylene <b>22.89</b> 10.00       U       2.30       11/9/16 3:13         1,1,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 3:13         o-Xylene       U       10.00       U       2.30       11/9/16 3:13         1,2,2-Tetrachloroethane       U       10.00       U       2.30       11/9/16 3:13         1,2,3-Trichloropropane       U       10.00       U       2.03       11/9/16 3:13         1,3-Si-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,4-Dichlorobenzene       U       10.00       U       2.03       11/9/16 3:13         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,4-Dichloroben	1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 3:13
TetrachloroetheneU10.00U1.4711/9/16 3:131,1,1,2-TetrachloroethaneU10.00U1.4611/9/16 3:13ChlorobenzeneU10.00U2.1711/9/16 3:13EthylbenzeneU10.00U2.3011/9/16 3:13p & m-Xylene <b>22.89</b> 10.00 <b>5.27</b> 2.3011/9/16 3:131,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 3:13o-XyleneU10.00U2.3011/9/16 3:131,2,3-TrichloroppaneU10.00U2.3011/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3-DichlorobenzeneU10.00U2.0311/9/16 3:131,2,4-TrimethylbenzeneU10.00U1.6611/9/16 3:131,2-DichlorobenzeneU10.00U1.6611/9/16 3:131,2-DichlorobenzeneU10.00U1.6611/9/16 3:131,2,4-TrinchlorobenzeneU10.00U1.3511/9/16 3:131,2,4-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.6611/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-Trichloroben	Toluene	48.76	10.00	12.94	2.65	11/9/16 3:13
1,1,1,2-TetrachloroethaneU10.00U1.4611/9/16 3:13ChlorobenzeneU10.00U2.1711/9/16 3:13EthylbenzeneU10.00U2.3011/9/16 3:13p & m-Xylene <b>22.89</b> 10.00 <b>5.27</b> 2.3011/9/16 3:131,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 3:13o-XyleneU10.00U2.3011/9/16 3:131,2,3-TrichloropropaneU10.00U2.0311/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3-5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3-DichlorobenzeneU10.00U2.0311/9/16 3:131,4-DichlorobenzeneU10.00U1.6611/9/16 3:131,2-DichlorobenzeneU10.00U1.6611/9/16 3:131,2,4-TrinchlorobenzeneU10.00U1.6611/9/16 3:131,2,4-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:132,3-TrichlorobenzeneU10.00U1.3511/9/16 3:132,3-Trichloro	1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 3:13
ChlorobenzeneU10.00U2.1711/9/16 3:13EthylbenzeneU10.00U2.3011/9/16 3:13p & m-Xylene <b>22.89</b> 10.00 <b>5.27</b> 2.3011/9/16 3:131,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 3:13o-XyleneU10.00U2.3011/9/16 3:131,2,3-TrichloropropaneU10.00U2.3011/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3-DichlorobenzeneU10.00U2.0311/9/16 3:131,3-DichlorobenzeneU10.00U1.6611/9/16 3:131,4-DichlorobenzeneU10.00U1.6611/9/16 3:131,2-DichlorobenzeneU10.00U1.6611/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:132,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:132,3-Trichlorobenzene<	Tetrachloroethene	U	10.00	U	1.47	11/9/16 3:13
EthylbenzeneU10.00U2.3011/9/16 3:13p & m-Xylene <b>22.89</b> 10.00 <b>5.27</b> 2.3011/9/16 3:131,1,2,2-TetrachloroethaneU10.00U1.4611/9/16 3:13o-XyleneU10.00U2.3011/9/16 3:131,2,3-TrichloropropaneU10.00U2.0311/9/16 3:131,2,3-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3,5-TrimethylbenzeneU10.00U2.0311/9/16 3:131,2,4-TrimethylbenzeneU10.00U2.0311/9/16 3:131,3-DichlorobenzeneU10.00U1.6611/9/16 3:131,4-DichlorobenzeneU10.00U1.6611/9/16 3:131,2-DichlorobenzeneU10.00U1.6611/9/16 3:131,2,4-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,4-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:131,2,3-TrichlorobenzeneU10.00U1.3511/9/16 3:132.MethylnaphthaleneU10.00U1.3511/9/16 3:132-MethylnaphthaleneU10.00U1.7211/9/16 3:13Toluene-d810370-130A1611084411/9/16 3:13	1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 3:13
p & m-Xylene       22.89       10.00       5.27       2.30       11/9/16 3:13         1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 3:13         o-Xylene       U       10.00       U       2.30       11/9/16 3:13         1,2,3-Trichloropropane       U       10.00       U       2.30       11/9/16 3:13         1,2,3-Trichloropropane       U       10.00       U       2.03       11/9/16 3:13         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,3-Dichlorobenzene       U       10.00       U       2.03       11/9/16 3:13         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/	Chlorobenzene	U	10.00	U	2.17	11/9/16 3:13
1,1,2,2-Tetrachloroethane       U       10,00       U       1.46       11/9/16 3:13         o-Xylene       U       10,00       U       2.30       11/9/16 3:13         1,2,3-Trichloropropane       U       10,00       U       2.30       11/9/16 3:13         Isopropylbenzene       U       10,00       U       2.03       11/9/16 3:13         Isopropylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,3,5-Trimethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,3-Dichlorobenzene       U       10,00       U       2.03       11/9/16 3:13         1,4-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         2,3-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13 <td>Ethylbenzene</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.30</td> <td>11/9/16 3:13</td>	Ethylbenzene	U	10.00	U	2.30	11/9/16 3:13
o-Xylene       U       10.00       U       2.30       11/9/16 3:13         1,2,3-Trichloropropane       U       10.00       U       1.66       11/9/16 3:13         Isopropylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,3-Dichlorobenzene       U       10.00       U       2.03       11/9/16 3:13         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Jeichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         2Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13 <td>p &amp; m-Xylene</td> <td>22.89</td> <td>10.00</td> <td>5.27</td> <td>2.30</td> <td>11/9/16 3:13</td>	p & m-Xylene	22.89	10.00	5.27	2.30	11/9/16 3:13
1,2,3-Trichloropropane       U       10,00       U       1.66       11/9/16 3:13         Isopropylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,3,5-Trimethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,3-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,4-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10,00       U       1.72       11/9/16 3:13         2-Methylnaphthalene       U       10,00       U       1.72	1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	
Isopropylbenzene         U         10.00         U         2.03         11/9/16 3:13           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 3:13           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 3:13           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 3:13           1,3-Dichlorobenzene         U         10.00         U         1.66         11/9/16 3:13           1,4-Dichlorobenzene         U         10.00         U         1.66         11/9/16 3:13           1,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 3:13           1,2,4-Trichlorobenzene         U         10.00         U         1.35         11/9/16 3:13           1,2,4-Trichlorobenzene         U         10.00         U         1.35         11/9/16 3:13           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 3:13           2Methylnaphthalene         U         10.00         U         1.72         11/9/16 3:13           2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 3:13	o-Xylene	U	10.00	U	2.30	11/9/16 3:13
1,3,5-Timethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,2,4-Trimethylbenzene       U       10,00       U       2.03       11/9/16 3:13         1,3-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,4-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10,00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10,00       U       1.72       11/9/16 3:13         2-Methylnaphthalene       U       10,00       U       1.72       11/9/16 3:13         1,2-DCA-d4       93       70-130       A16110844       11/9/16 3:13     <	1,2,3-Trichloropropane		10.00	U	1.66	11/9/16 3:13
1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 3:13         1,3-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         Naphthalene       12.38       10.00       2.36       1.91       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         3       70-130       A16110844       11/9/16 3:13       13         Toluene-d8       103       70-130       A16110844       11/9/16 3:13	Isopropylbenzene	U	10.00	U	2.03	11/9/16 3:13
1,3-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         Naphthalene       12.38       10.00       2.36       1.91       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110844       11/9/16 3:13         Toluene-d8       103       70-130       A16110844       11/9/16 3:13	1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 3:13
1,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         Naphthalene       12.38       10.00       2.36       1.91       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110844       11/9/16 3:13         Toluene-d8       103       70-130       A16110844       11/9/16 3:13	1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 3:13
U       10.00       U       1.66       11/9/16 3:13         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         Naphthalene       12.38       10.00       2.36       1.91       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110844       11/9/16 3:13         Toluene-d8       103       70-130       A16110844       11/9/16 3:13	1,3-Dichlorobenzene		10.00	U	1.66	11/9/16 3:13
1,2,4-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         Naphthalene       12.38       10.00       2.36       1.91       11/9/16 3:13         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110844       11/9/16 3:13         Toluene-d8       103       70-130       A16110844       11/9/16 3:13	1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 3:13
Naphthalene         12.38         10.00         2.36         1.91         11/9/16 3:13           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 3:13           2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 3:13           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110844         11/9/16 3:13           Toluene-d8         103         70-130         A16110844         11/9/16 3:13	1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 3:13
1,2,3-Trichlorobenzene       U       10,00       U       1.35       11/9/16 3:13         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 3:13         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110844       11/9/16 3:13         Toluene-d8       103       70-130       A16110844       11/9/16 3:13	1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 3:13
2-Methylnaphthalene         U         10.00         U         1.72         11/9/16 3:13           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110844         11/9/16 3:13           Toluene-d8         103         70-130         A16110844         11/9/16 3:13	Naphthalene	12.38	10.00	2.36	1.91	11/9/16 3:13
SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110844         11/9/16 3:13           Toluene-d8         103         70-130         A16110844         11/9/16 3:13	1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 3:13
1,2-DCA-d49370-130A1611084411/9/16 3:13Toluene-d810370-130A1611084411/9/16 3:13	2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 3:13
1,2-DCA-d49370-130A1611084411/9/16 3:13Toluene-d810370-130A1611084411/9/16 3:13						
Toluene-d8         103         70-130         A16110844         11/9/16 3:13	SURROGATES	Percent Recovery	Limits	Lab File ID		
	1,2-DCA-d4	93				
Bromofluorobenzene <b>108</b> 70-130 A16110844 11/9/16 3:13	Toluene-d8	103	70-130	A16110844		11/9/16 3:13
	Bromofluorobenzene	108	70-130	A16110844		11/9/16 3:13

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110903	
Beacon Sample ID:	LCS_161109a	
Client ID/Sampling Location:		
Date Time Collected:		
Matrix:		
Dilution Factor:	1.0	
Sample Volume in Liters:	1.00	
Date Received:		
Analysis Date:	11/9/2016	
Analysis Time:	12:07:00 PM	
Beacon Job Number:		
	Results	Units

Beacon Job Number.				
	Results	Units	Completed	Limits
COMPOUNDS				
Vinyl Chloride	92%	%REC	11/9/16 12:07	80-120
1,1-Dichloroethene	100%	%REC	11/9/16 12:07	80-120
1,1,2-Trichlorotrifluoroethane (Fr.113)	83%	%REC	11/9/16 12:07	80-120
trans-1,2-Dichloroethene	103%	%REC	11/9/16 12:07	80-120
Methyl-t-butyl ether	89%	%REC	11/9/16 12:07	80-120
1,1-Dichloroethane	102%	%REC	11/9/16 12:07	80-120
cis-1,2-Dichloroethene	104%	%REC	11/9/16 12:07	80-120
Chloroform	101%	%REC	11/9/16 12:07	80-120
1,2-Dichloroethane	98%	%REC	11/9/16 12:07	80-120
1,1,1-Trichloroethane	91%	%REC	11/9/16 12:07	80-120
Carbon Tetrachloride	93%	%REC	11/9/16 12:07	80-120
Benzene	98%	%REC	11/9/16 12:07	80-120
Trichloroethene	105%	%REC	11/9/16 12:07	80-120
1,4-Dioxane	106%	%REC	11/9/16 12:07	80-120
1,1,2-Trichloroethane	105%	%REC	11/9/16 12:07	80-120
Toluene	114%	%REC	11/9/16 12:07	80-120
1,2-Dibromoethane (EDB)	111%	%REC	11/9/16 12:07	80-120
Tetrachloroethene	94%	%REC	11/9/16 12:07	80-120
1,1,1,2-Tetrachloroethane	99%	%REC	11/9/16 12:07	80-120
Chlorobenzene	100%	%REC	11/9/16 12:07	80-120
Ethylbenzene	103%	%REC	11/9/16 12:07	80-120
p & m-Xylene	105%	%REC	11/9/16 12:07	80-120
1,1,2,2-Tetrachloroethane	97%	%REC	11/9/16 12:07	80-120
o-Xylene	99%	%REC	11/9/16 12:07	80-120
1,2,3-Trichloropropane	95%	%REC	11/9/16 12:07	80-120
Isopropylbenzene	98%	%REC	11/9/16 12:07	80-120
1,3,5-Trimethylbenzene	111%	%REC	11/9/16 12:07	80-120
1,2,4-Trimethylbenzene	102%	%REC	11/9/16 12:07	80-120
1,3-Dichlorobenzene	104%	%REC	11/9/16 12:07	80-120
1,4-Dichlorobenzene	101%	%REC	11/9/16 12:07	80-120
1,2-Dichlorobenzene	105%	%REC	11/9/16 12:07	80-120
1,2,4-Trichlorobenzene	112%	%REC	11/9/16 12:07	80-120
Naphthalene	109%	%REC	11/9/16 12:07	80-120
1,2,3-Trichlorobenzene	109%	%REC	11/9/16 12:07	80-120
2-Methylnaphthalene	99%	%REC	11/9/16 12:07	80-120
····· ·························	/ •	,		
SURROGATES	Percent Recovery	Limits	Completed	Lab File ID
1,2-DCA-d4	105	70-130	11/9/16 12:07	A16110903
Toluene-d8	109	70-130	11/9/16 12:07	A16110903
Bromofluorobenzene	109	70-130	11/9/16 12:07	A16110903

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110904
Beacon Sample ID:	LB_161109a
Client ID/Sampling Location:	
Date Time Collected:	
Matrix:	
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	
Analysis Date:	11/9/2016
Analysis Time:	12:31:00 PM
Beacon Job Number:	
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 12:31
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 12:31
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 12:31
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 12:31
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 12:31
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 12:31
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 12:31
Chloroform	U	10.00	U	2.05	11/9/16 12:31
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 12:31
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 12:31
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 12:31
Benzene	U	10.00	U	3.13	11/9/16 12:31
Trichloroethene	U	10.00	U	1.86	11/9/16 12:31
1,4-Dioxane	U	10.00	U	2.77	11/9/16 12:31
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 12:31
Toluene	U	10.00	U	2.65	11/9/16 12:31
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 12:31
Tetrachloroethene	U	10.00	U	1.47	11/9/16 12:31
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 12:31
Chlorobenzene	U	10.00	U	2.17	11/9/16 12:31
Ethylbenzene	U	10.00	U	2.30	11/9/16 12:31
p & m-Xylene	U	10.00	U	2.30	11/9/16 12:31
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 12:31
o-Xylene	U	10.00	U	2.30	11/9/16 12:31
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 12:31
Isopropylbenzene	U	10.00	U	2.03	11/9/16 12:31
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 12:31
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 12:31
1,3-Dichlorobenzene	U	10.00	U	1.66	11/9/16 12:31
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 12:31
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 12:31
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 12:31
Naphthalene	U	10.00	U	1.91	11/9/16 12:31
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 12:31
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 12:31
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	102	70-130	A16110904		11/9/16 12:31
Toluene-d8	106	70-130	A16110904		11/9/16 12:31
Bromofluorobenzene	101	70-130	A16110904		11/9/16 12:31

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110905	
Beacon Sample ID:	LCSD_161109a	
Client ID/Sampling Location:		
Date Time Collected:		
Matrix:		
Dilution Factor:	1.0	
Sample Volume in Liters:	1.00	
Date Received:		
Analysis Date:	11/9/2016	
Analysis Time:	12:54:00 PM	
Beacon Job Number:		
	Results	Units

Beacon job Number.	<b>D</b> 1		a 1. t	<b>.</b>
COMPOUNDS	Results	Units	Completed	Limits
COMPOUNDS	0001	0/050	11/0/17 10 54	70.120
Vinyl Chloride	89%	%REC	11/9/16 12:54	70-130
1,1-Dichloroethene	90%	%REC	11/9/16 12:54	70-130
1,1,2-Trichlorotrifluoroethane (Fr.113)	74%	%REC	11/9/16 12:54	70-130
trans-1,2-Dichloroethene	103%	%REC	11/9/16 12:54	70-130
Methyl-t-butyl ether	86%	%REC	11/9/16 12:54	70-130
1,1-Dichloroethane	106%	%REC	11/9/16 12:54	70-130
cis-1,2-Dichloroethene	104%	%REC	11/9/16 12:54	70-130
Chloroform	104%	%REC	11/9/16 12:54	70-130
1,2-Dichloroethane	97%	%REC	11/9/16 12:54	70-130
1,1,1-Trichloroethane	89%	%REC	11/9/16 12:54	70-130
Carbon Tetrachloride	89%	%REC	11/9/16 12:54	70-130
Benzene	100%	%REC	11/9/16 12:54	70-130
Trichloroethene	106%	%REC	11/9/16 12:54	70-130
1,4-Dioxane	108%	%REC	11/9/16 12:54	70-130
1,1,2-Trichloroethane	106%	%REC	11/9/16 12:54	70-130
Toluene	108%	%REC	11/9/16 12:54	70-130
1,2-Dibromoethane (EDB)	111%	%REC	11/9/16 12:54	70-130
Tetrachloroethene	97%	%REC	11/9/16 12:54	70-130
1,1,1,2-Tetrachloroethane	100%	%REC	11/9/16 12:54	70-130
Chlorobenzene	102%	%REC	11/9/16 12:54	70-130
Ethylbenzene	100%	%REC	11/9/16 12:54	70-130
p & m-Xylene	99%	%REC	11/9/16 12:54	70-130
1,1,2,2-Tetrachloroethane	100%	%REC	11/9/16 12:54	70-130
o-Xylene	97%	%REC	11/9/16 12:54	70-130
1,2,3-Trichloropropane	97%	%REC	11/9/16 12:54	70-130
Isopropylbenzene	98%	%REC	11/9/16 12:54	70-130
1,3,5-Trimethylbenzene	108%	%REC	11/9/16 12:54	70-130
1,2,4-Trimethylbenzene	99%	%REC	11/9/16 12:54	70-130
1,3-Dichlorobenzene	102%	%REC	11/9/16 12:54	70-130
1,4-Dichlorobenzene	104%	%REC	11/9/16 12:54	70-130
1,2-Dichlorobenzene	103%	%REC	11/9/16 12:54	70-130
1,2,4-Trichlorobenzene	111%	%REC	11/9/16 12:54	70-130
Naphthalene	106%	%REC	11/9/16 12:54	70-130
1,2,3-Trichlorobenzene	100 %	%REC	11/9/16 12:54	70-130
2-Methylnaphthalene	98%	%REC	11/9/16 12:54	70-130
	2070	JUILLE	11/2/10 12.54	,0-150
SURROGATES	Percent Recovery	Limits	Completed	Lab File ID
1,2-DCA-d4	<u>99</u>	70-130	11/9/16 12:54	A16110905
Toluene-d8	110	70-130	11/9/16 12:54	A16110905
Bromofluorobenzene	104	70-130	11/9/16 12:54	A16110905
21011011000012010	101	,0150	11/7/10 12.34	

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110906
Beacon Sample ID:	H0199658
Client ID/Sampling Location:	SV-08-04
Date Time Collected:	10/31/16 4:14 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	1:19:00 PM
Beacon Job Number:	3588B
	D 1/

Deacon Job Number.	3388D				
	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 13:19
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 13:19
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 13:19
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 13:19
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 13:19
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 13:19
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 13:19
Chloroform	U	10.00	U	2.05	11/9/16 13:19
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 13:19
1,1,1-Trichloroethane	13.15	10.00	2.41	1.83	11/9/16 13:19
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 13:19
Benzene	10.57	10.00	3.31	3.13	11/9/16 13:19
Trichloroethene	U	10.00	U	1.86	11/9/16 13:19
1,4-Dioxane	15.33	10.00	4.25	2.77	11/9/16 13:19
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 13:19
Toluene	57.07	10.00	15.15	2.65	11/9/16 13:19
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 13:19
Tetrachloroethene	U	10.00	U	1.47	11/9/16 13:19
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 13:19
Chlorobenzene	U	10.00	U	2.17	11/9/16 13:19
Ethylbenzene	U	10.00	U	2.30	11/9/16 13:19
p & m-Xylene	11.15	10.00	2.57	2.30	11/9/16 13:19
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 13:19
o-Xylene	U	10.00	U	2.30	11/9/16 13:19
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 13:19
Isopropylbenzene	U	10.00	U	2.03	11/9/16 13:19
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 13:19
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 13:19
1,3-Dichlorobenzene	108.32	10.00	18.02	1.66	11/9/16 13:19
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 13:19
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 13:19
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 13:19
Naphthalene	U	10.00	U	1.91	11/9/16 13:19
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 13:19
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 13:19
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	99	70-130	A16110906		11/9/16 13:19
Toluene-d8	103	70-130	A16110906		11/9/16 13:19
Bromofluorobenzene	108	70-130	A16110906		11/9/16 13:19

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110908
Beacon Sample ID:	H0199622
Client ID/Sampling Location:	SV-08-03
Date Time Collected:	10/31/16 4:52 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	2:09:00 PM
Beacon Job Number:	3588B
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 14:09
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 14:09
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 14:09
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 14:09
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 14:09
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 14:09
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 14:09
Chloroform	U	10.00	U	2.05	11/9/16 14:09
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 14:09
1,1,1-Trichloroethane	16.02	10.00	2.94	1.83	11/9/16 14:09
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 14:09
Benzene	10.18	10.00	3.19	3.13	11/9/16 14:09
Trichloroethene	U	10.00	U	1.86	11/9/16 14:09
1,4-Dioxane	12.82	10.00	3.56	2.77	11/9/16 14:09
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 14:09
Toluene	52.86	10.00	14.03	2.65	11/9/16 14:09
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 14:09
Tetrachloroethene	U	10.00	U	1.47	11/9/16 14:09
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 14:09
Chlorobenzene	U	10.00	U	2.17	11/9/16 14:09
Ethylbenzene	U	10.00	U	2.30	11/9/16 14:09
p & m-Xylene	U	10.00	U	2.30	11/9/16 14:09
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 14:09
o-Xylene	U	10.00	U	2.30	11/9/16 14:09
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 14:09
Isopropylbenzene	U	10.00	U	2.03	11/9/16 14:09
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 14:09
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 14:09
1,3-Dichlorobenzene	1,207.58 E	10.00	200.84 E	1.66	11/9/16 14:09
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 14:09
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 14:09
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 14:09
Naphthalene	U	10.00	U	1.91	11/9/16 14:09
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 14:09
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 14:09
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	97	70-130	A16110908		11/9/16 14:09
Toluene-d8	105	70-130	A16110908		11/9/16 14:09
Bromofluorobenzene	105	70-130	A16110908		11/9/16 14:09

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110910
Beacon Sample ID:	H0238242
Client ID/Sampling Location:	SV-07-01
Date Time Collected:	11/2/16 11:35 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	2:56:00 PM
Beacon Job Number:	3588B
	D 14 .

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 14:56
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 14:56
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 14:56
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 14:56
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 14:56
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 14:56
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 14:56
Chloroform	U	10.00	U	2.05	11/9/16 14:56
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 14:56
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 14:56
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 14:56
Benzene	U	10.00	U	3.13	11/9/16 14:56
Trichloroethene	U	10.00	U	1.86	11/9/16 14:56
1,4-Dioxane	U	10.00	U	2.77	11/9/16 14:56
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 14:56
Toluene	U	10.00	U	2.65	11/9/16 14:56
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 14:56
Tetrachloroethene	U	10.00	U	1.47	11/9/16 14:56
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 14:56
Chlorobenzene	U	10.00	U	2.17	11/9/16 14:56
Ethylbenzene	U	10.00	U	2.30	11/9/16 14:56
p & m-Xylene	U	10.00	U	2.30	11/9/16 14:56
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 14:56
o-Xylene	U	10.00	U	2.30	11/9/16 14:56
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 14:56
Isopropylbenzene	U	10.00	U	2.03	11/9/16 14:56
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 14:56
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 14:56
1,3-Dichlorobenzene	U	10.00	U	1.66	11/9/16 14:56
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 14:56
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 14:56
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 14:56
Naphthalene	U	10.00	U	1.91	11/9/16 14:56
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 14:56
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 14:56
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	99	70-130	A16110910		11/9/16 14:56
Toluene-d8	105	70-130	A16110910		11/9/16 14:56
Bromofluorobenzene	105	70-130	A16110910		11/9/16 14:56

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110912
Beacon Sample ID:	H0234516
Client ID/Sampling Location:	SV-07-02
Date Time Collected:	11/2/16 12:32 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	3:42:00 PM
Beacon Job Number:	3588B
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 15:42
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 15:42
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 15:42
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 15:42
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 15:42
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 15:42
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 15:42
Chloroform	U	10.00	U	2.05	11/9/16 15:42
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 15:42
1,1,1-Trichloroethane	17.4	10.00	3.19	1.83	11/9/16 15:42
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 15:42
Benzene	11.89	10.00	3.72	3.13	11/9/16 15:42
Trichloroethene	U	10.00	U	1.86	11/9/16 15:42
1,4-Dioxane	U	10.00	U	2.77	11/9/16 15:42
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 15:42
Toluene	126.72	10.00	33.63	2.65	11/9/16 15:42
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 15:42
Tetrachloroethene	U	10.00	U	1.47	11/9/16 15:42
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 15:42
Chlorobenzene	U	10.00	U	2.17	11/9/16 15:42
Ethylbenzene	14.41	10.00	3.32	2.30	11/9/16 15:42
p & m-Xylene	39.65	10.00	9.13	2.30	11/9/16 15:42
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 15:42
o-Xylene	U	10.00	U	2.30	11/9/16 15:42
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 15:42
Isopropylbenzene	U	10.00	U	2.03	11/9/16 15:42
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 15:42
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 15:42
1,3-Dichlorobenzene	1,013.24 E	10.00	168.52 E	1.66	11/9/16 15:42
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 15:42
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 15:42
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 15:42
Naphthalene	U	10.00	U	1.91	11/9/16 15:42
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 15:42
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 15:42
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	98	70-130	A16110912		11/9/16 15:42
Toluene-d8	105	70-130	A16110912		11/9/16 15:42
Bromofluorobenzene	106	70-130	A16110912		11/9/16 15:42

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110914
Beacon Sample ID:	G0115976
Client ID/Sampling Location:	SV-07-04
Date Time Collected:	11/2/16 12:59 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	4:29:00 PM
Beacon Job Number:	3588B
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 16:29
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 16:29
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 16:29
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 16:29
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 16:29
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 16:29
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 16:29
Chloroform	U	10.00	U	2.05	11/9/16 16:29
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 16:29
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 16:29
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 16:29
Benzene	U	10.00	U	3.13	11/9/16 16:29
Trichloroethene	U	10.00	U	1.86	11/9/16 16:29
1,4-Dioxane	U	10.00	U	2.77	11/9/16 16:29
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 16:29
Toluene	121.69	10.00	32.29	2.65	11/9/16 16:29
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 16:29
Tetrachloroethene	U	10.00	U	1.47	11/9/16 16:29
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 16:29
Chlorobenzene	U	10.00	U	2.17	11/9/16 16:29
Ethylbenzene	16.45	10.00	3.79	2.30	11/9/16 16:29
p & m-Xylene	43.8	10.00	10.09	2.30	11/9/16 16:29
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 16:29
o-Xylene	10.91	10.00	2.51	2.30	11/9/16 16:29
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 16:29
Isopropylbenzene	U	10.00	U	2.03	11/9/16 16:29
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 16:29
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 16:29
1,3-Dichlorobenzene	1,109.66 E	10.00	184.55 E	1.66	11/9/16 16:29
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 16:29
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 16:29
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 16:29
Naphthalene	U	10.00	U	1.91	11/9/16 16:29
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 16:29
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 16:29
· ·					
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	99	70-130	A16110914		11/9/16 16:29
Toluene-d8	104	70-130	A16110914		11/9/16 16:29
Bromofluorobenzene	106	70-130	A16110914		11/9/16 16:29

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110916
Beacon Sample ID:	G0115955
Client ID/Sampling Location:	SV-07-03
Date Time Collected:	11/2/16 1:21 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	5:16:00 PM
Beacon Job Number:	3588B

Vinyl Chloride         U         10.00         U         3.91         11/9/16 17:16           1,1-Dichloroethene         U         10.00         U         2.52         11/9/16 17:16           r,12-Trichloroethane (Fr.113)         U         10.00         U         2.52         11/9/16 17:16           rans-1,2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           dethyl-butyl ether         U         10.00         U         2.77         11/9/16 17:16           1,1-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           2-Dichloroethane         U         10.00         U         1.83         11/9/16 17:16           3-rechloride         U         10.00         U         1.83         11/9/16 17:16           Garzon         10.85         10.00         3.44         3.13         11/9/16 17:16           Garzon         10.085         10.00         J         1.83         11/9/16 17:16           A-Dioxane         12.68         10.00         J         1.83         11/9/16 17:16           1,12-Trich		Results	LOQ	Results	LOQ	
J. Dichloroethene         U         10.00         U         2.52         11/9/16 17:16           1, 2-Trichlorotrifluoroethene         U         10.00         U         2.52         11/9/16 17:16           Ans-1, 2-Dichloroethene         U         10.00         U         2.52         11/9/16 17:16           Athyl-t-butyl ether         U         10.00         U         2.77         11/9/16 17:16           1,-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           Si-1,2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           Si-1,2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           Si-1,2-Dichloroethane         U         10.00         U         1.83         11/9/16 17:16           Carbon Tetrachloride         U         10.00         U         1.83         11/9/16 17:16           Carbon Tetrachloride         U         10.00         U         1.83         11/9/16 17:16           Crichloroethane         U         10.00         U         1.83         11/9/16 17:16           Crichloroethane         U         10.00         U         1.83         11/9/16 17:16	COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
1,2-Trichlorottrifluoroethane (Fr.113)       U       10.00       U       1.30       11/9/16 17:16         rans-1,2-Dichloroethane       U       10.00       U       2.52       11/9/16 17:16         Atehyl-t-butyl ether       U       10.00       U       2.77       11/9/16 17:16         1, Dichloroethane       U       10.00       U       2.47       11/9/16 17:16         Schoroform       U       10.00       U       2.52       11/9/16 17:16         Schoroform       U       10.00       U       2.47       11/9/16 17:16         2-Dichloroethane       U       10.00       U       2.52       11/9/16 17:16         2-Dichloroethane       U       10.00       U       2.43       11/9/16 17:16         Attrickloroethane       U       10.00       U       1.83       11/9/16 17:16         Carbon Tetrachloride       U       10.00       U       1.86       11/9/16 17:16         Garzon Tetrachloride       U       10.00       U       1.83       11/9/16 17:16         Cyborane       U       10.00       U       1.83       11/9/16 17:16         Cyborane       U       10.00       U       1.83       11/9/16 17:16	Vinyl Chloride	U	10.00	U	3.91	11/9/16 17:16
Tans-1,2-Dichloroethene         U         10.00         U         2.52         11/9/16 17:16           dethyl-butyl ether         U         10.00         U         2.77         11/9/16 17:16           atternet         U         10.00         U         2.47         11/9/16 17:16           si-1,2-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           Si-1,2-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           Alboroform         U         10.00         U         2.47         11/9/16 17:16           2,2-Dichloroethane         U         10.00         U         1.83         11/9/16 17:16           Carbon Tetrachloride         U         10.00         U         1.83         11/9/16 17:16           Carbon Tetrachloroethane         U         10.00         U         1.86         11/9/16 17:16           Carbon Tetrachloroethane         U         10.00         U         1.83         11/9/16 17:16           A-Dioxane <b>12.68</b> 10.00         U         1.83         11/9/16 17:16           J_2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 17:16 <tr< td=""><td>1,1-Dichloroethene</td><td>U</td><td>10.00</td><td>U</td><td>2.52</td><td>11/9/16 17:16</td></tr<>	1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 17:16
dethyl-i-butyl ether         U         10.00         U         2.77         11/9/16 17:16           ,1-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           isi-1,2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           2.Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           arbon Tetrachloride         U         10.00         U         1.83         11/9/16 17:16           Barcene         10.85         10.00         3.4         3.13         11/9/16 17:16           Crichloroethane         U         10.00         U         1.86         11/9/16 17:16           A-Dioxane         12.68         10.00         3.52         2.77         11/9/16 17:16           1,2-Trichloroethane         U         10.00         U         1.83         11/9/16 17:16           1,2-Trichloroethane         U         10.00         U         1.44         11/9/16 17:16           1,2-Trichloroethane         U         10.00         U         1.47         11/9/16 17:16 <td< td=""><td>1,1,2-Trichlorotrifluoroethane (Fr.113)</td><td>U</td><td>10.00</td><td>U</td><td>1.30</td><td>11/9/16 17:16</td></td<>	1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 17:16
J-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           isi-1_2-Dichloroethane         U         10.00         U         2.52         11/9/16 17:16           2-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           2-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16           2-Dichloroethane         U         10.00         U         1.83         11/9/16 17:16           Carbon Tetrachloride         U         10.00         U         1.86         11/9/16 17:16           Ganzene         10.85         10.00         U         1.86         11/9/16 17:16           Yirchloroethane         U         10.00         U         1.85         11/9/16 17:16           A-Dioxane         12.68         10.00         U         1.83         11/9/16 17:16           A-Dioxane         10.00         U         1.83         11/9/16 17:16         1.10           A-Diothonzene         U         10.00         U         1.47         11/9/16 17:16           Chorobenzene         U         10.00         U         2.47         11/9/16 17:16           Chorobenzene <td< td=""><td>trans-1,2-Dichloroethene</td><td>U</td><td>10.00</td><td>U</td><td>2.52</td><td>11/9/16 17:16</td></td<>	trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 17:16
is-1,2-Dichloroethene       U       10.00       U       2.52       11/9/16 17:16         2hloroform       U       10.00       U       2.05       11/9/16 17:16         ,2-Dichloroethane       U       10.00       U       2.47       11/9/16 17:16         ,1,1-Trichloroethane       U       10.00       U       1.83       11/9/16 17:16         Carbon Tetrachloride       U       10.00       U       1.59       11/9/16 17:16         Senzene       10.85       10.00       3.4       3.13       11/9/16 17:16         A-Dioxane       12.68       10.00       U       1.83       11/9/16 17:16         ,2-Dibronoethane       U       10.00       U       1.83       11/9/16 17:16         oluene       93.8       10.00       24.89       2.65       11/9/16 17:16         oluene       93.8       10.00       U       1.46       11/9/16 17:16         ,2-Dibronoethane (EDB)       U       10.00       U       1.47       11/9/16 17:16         getrachloroethane       U       10.00       U       1.46       11/9/16 17:16         ,1,1,2-Tetrachloroethane       U       10.00       U       2.17       11/9/16 17:16	Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 17:16
Chloroform         U         10.00         U         2.05         11/9/16         17:16           2Dichloroethane         U         10.00         U         2.47         11/9/16         17:16           arbon Tetrachloride         U         10.00         U         1.83         11/9/16         17:16           arbon Tetrachloride         U         10.00         U         1.59         11/9/16         17:16           Carbon Tetrachloride         U         10.00         U         1.83         11/9/16         17:16           Carbon Tetrachloride         U         10.00         U         1.83         11/9/16         17:16           A-Dioxane         U         10.00         U         1.83         11/9/16         17:16           Coluene         93.8         10.00         U         1.30         11/9/16         17:16           Carbon Tetrachloroethane         U         10.00         U         1.40         11/9/16         17:16           Carbon Schane         U         10.00         U         1.46         11/9/16         17:16           Carbon Schane         U         10.00         U         2.30         11/9/16         17:16	1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 17:16
2-Dichloroethane         U         10.00         U         2.47         11/9/16 17:16 $l, l, 1$ -Trichloroethane         U         10.00         U         1.83         11/9/16 17:16           Carbon Tetrachloride         U         10.00         U         1.59         11/9/16 17:16           Benzene         10.85         10.00         3.4         3.13         11/9/16 17:16           Senzene         U         10.00         U         1.86         11/9/16 17:16           Arbon Tetrachloride         U         10.00         U         1.86         11/9/16 17:16           Arbon Tetrachloroethane         U         10.00         U         1.83         11/9/16 17:16           Oluene         93.8         10.00         U         1.83         11/9/16 17:16           Calbon Tetrachloroethane         U         10.00         U         1.30         11/9/16 17:16           Calbon Compatibility Expense         U         10.00         U         1.47         11/9/16 17:16           Calbon Compatibility Expense         U         10.00         U         2.17         11/9/16 17:16           Calbon Compatibility Expense         U         10.00         U         2.30         11/9/16 17:16	cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 17:16
1,1-Trichloroethane       U       10.00       U       1.83       11/9/16       17:16         Carbon Tetrachloride       U       10.00       U       1.59       11/9/16       17:16         Senzene       10.85       10.00       3.4       3.13       11/9/16       17:16         Trichloroethene       U       10.00       U       1.86       11/9/16       17:16         A-Dioxane       12.68       10.00       3.52       2.77       11/9/16       17:16         Oluene       93.8       10.00       U       1.83       11/9/16       17:16         2-Dibromoethane (EDB)       U       10.00       U       1.30       11/9/16       17:16         2-Dibromoethane       U       10.00       U       1.44       11/9/16       17:16         2-Dibromoethane       U       10.00       U       1.47       11/9/16       17:16         2-Dibromoethane       U       10.00       U       1.46       11/9/16       17:16         2-Dibromoethane       U       10.00       U       1.46       11/9/16       17:16         3-Tichloropethane       U       10.00       U       2.30       11/9/16       17:16     <	Chloroform	U	10.00	U	2.05	11/9/16 17:16
Aarbon TetrachlorideU10.00U1.5911/9/16 17:16Benzene10.8510.003.43.1311/9/16 17:16Chrono CheneU10.00U1.8611/9/16 17:16A-Dioxane12.6810.003.522.7711/9/16 17:16I_2-TrichloroethaneU10.00U1.8311/9/16 17:16Coluene93.810.0024.892.6511/9/16 17:16Coluene93.810.00U1.3011/9/16 17:16ColueneU10.00U1.4611/9/16 17:16CalconeU10.00U1.4611/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.00U2.3011/9/16 17:16ChlorobenzeneU10.00U2.3011/9/16 17:16ChlorobenzeneU10.00U2.3011/9/16 17:16ChlorobenzeneU10.00U2.3011/9/16 17:16ChlorobenzeneU10.00U2.0311/9/16 17:16CalcondonaU10.00U2.0311/9/16 17:16CalcondonaU10.00U2.0311/9/16 17:16CalcondonaU10.00U2.0311/9/16 17:16CalcondonaU10.00 <td>1,2-Dichloroethane</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.47</td> <td>11/9/16 17:16</td>	1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 17:16
Benzene         10.85         10.00         3.4         3.13         11/9/16 17:16           Trichloroethene         U         10.00         U         1.86         11/9/16 17:16           A-Dioxane         12.68         10.00         3.52         2.77         11/9/16 17:16           oluene         U         10.00         U         1.83         11/9/16 17:16           2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 17:16           2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 17:16           2-Dibromoethane         U         10.00         U         1.47         11/9/16 17:16           Catrachloroethane         U         10.00         U         1.46         11/9/16 17:16           Chrobenzene         U         10.00         U         2.17         11/9/16 17:16           Chrobenzene         U         10.00         U         2.16         11/9/16 17:16           A         M.Xylene         37.35         10.00         8.6         2.30         11/9/16 17:16           .2,2-Tetrachloroethane         U         10.00         U         2.03         11/9/16 17:16           .3,5-Trini	1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 17:16
TrichloroetheneU10.00U1.8611/9/16 17:16 $(4-Dioxane)$ <b>12.68</b> 10.00 <b>3.52</b> 2.7711/9/16 17:16 $(1,2-Trichloroethane)$ U10.00U1.8311/9/16 17:16 $(2-Dibromoethane (EDB)$ U10.00U1.3011/9/16 17:16 $(2-Dibromoethane)$ U10.00U1.4711/9/16 17:16 $(2-Dibromoethane)$ U10.00U1.4711/9/16 17:16 $(2-Dibromoethane)$ U10.00U1.4711/9/16 17:16 $(1,1,2-Tetrachloroethane)$ U10.00U2.1711/9/16 17:16 $(1,1,2-Tetrachloroethane)$ U10.00U2.1711/9/16 17:16 $(2,2,2-Tetrachloroethane)$ U10.00U2.1711/9/16 17:16 $(1,2,2-Tetrachloroethane)$ U10.00U1.4611/9/16 17:16 $(1,2,2-Tetrachloroethane)$ U10.00U2.3011/9/16 17:16 $(2,3,3-Trichloropropane)$ U10.00U2.0311/9/16 17:16 $(3,5-Trimethylbenzene)$ U10.00U2.0311/9/16 17:16 $(3-Dichlorobenzene)$ U10.00U2.0311/9/16 17:16 $(3-Dichlorobenzene)$ U10.00U1.6611/9/16 17:16 $(3-Dichlorobenzene)$ U10.00U1.3511/9/16 17:16 $(3-Dichlorobenzene)$ U10.00U1.3511/9/16 17:16 $(2,4-Trichlorobenzene)$ U10.00 <td>Carbon Tetrachloride</td> <td>U</td> <td>10.00</td> <td>U</td> <td>1.59</td> <td>11/9/16 17:16</td>	Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 17:16
4-Dioxane12.6810.00 $3.52$ $2.77$ $11/9/16$ $17:16$ ,1,2-TrichloroethaneU10.00U1.83 $11/9/16$ $17:16$ 'oluene93.810.0024.892.65 $11/9/16$ $17:16$ ,2-Dibromoethane (EDB)U10.00U1.30 $11/9/16$ $17:16$ 'etrachloroetheneU10.00U1.46 $11/9/16$ $17:16$ _1,1,2-TetrachloroethaneU10.00U2.17 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.17 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.17 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.30 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.30 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.30 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.30 $11/9/16$ $17:16$ ChlorobenzeneU10.00U2.03 $11/9/16$ $17:16$ -XyleneU10.00U2.03 $11/9/16$ $17:16$ -Xyl	Benzene	10.85	10.00	3.4	3.13	11/9/16 17:16
1,2-TrichloroethaneU10.00U1.8311/9/16 17:16Foluene93.810.0024.892.6511/9/16 17:16 $2$ -Dibromoethane (EDB)U10.00U1.3011/9/16 17:16FetrachloroetheneU10.00U1.4711/9/16 17:16 $1,1,2$ -TetrachloroethaneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16Sthylbenzene14.0410.003.232.3011/9/16 17:16 $2$ m-Xylene37.3510.008.62.3011/9/16 17:16 $2,2$ -TetrachloroethaneU10.00U1.4611/9/16 17:16 $2,3$ -TrichloropropaneU10.00U2.0311/9/16 17:16 $2,3$ -TrichloropropaneU10.00U2.0311/9/16 17:16 $3,5$ -TrimethylbenzeneU10.00U2.0311/9/16 17:16 $3,5$ -TrimethylbenzeneU10.00U2.0311/9/16 17:16 $2,4$ -TrichlorobenzeneU10.00U1.3511/9/16 17:16 <t< td=""><td>Trichloroethene</td><td>U</td><td>10.00</td><td>U</td><td>1.86</td><td>11/9/16 17:16</td></t<>	Trichloroethene	U	10.00	U	1.86	11/9/16 17:16
Obluene         93.8         10.00         24.89         2.65         11/9/16 17:16           ,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/9/16 17:16           "etrachloroethene         U         10.00         U         1.47         11/9/16 17:16           "etrachloroethene         U         10.00         U         1.46         11/9/16 17:16           1,1,2-Tetrachloroethane         U         10.00         U         2.17         11/9/16 17:16           Chlorobenzene         U         10.00         U         2.17         11/9/16 17:16           Schwylene         37.35         10.00         8.6         2.30         11/9/16 17:16           -1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/9/16 17:16           -2,3-Trichloropropane         U         10.00         U         2.03         11/9/16 17:16           -3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 17:16           -3,2-Trimethylbenzene         U         10.00         U         2.03         11/9/16 17:16           -2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 17:16	1,4-Dioxane	12.68	10.00	3.52	2.77	11/9/16 17:16
JU10.00U1.3011/9/16 17:16CetrachloroetheneU10.00U1.4711/9/16 17:16J, 1, 2-TetrachloroethaneU10.00U1.4611/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.003.232.3011/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneU10.00U2.1311/9/16 17:16ChlorobenzeneU10.00U1.4611/9/16 17:16ChlorobenzeneU10.00U2.3011/9/16 17:16AyleneU10.00U2.3011/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16-XyleneU10.00U1.6611/9/16 17:16-XyleneU10.00U1.6611/9/16 17:16-XyleneU10.00U1.3511/9/16 17:16 <tr< td=""><td>1,1,2-Trichloroethane</td><td>U</td><td>10.00</td><td>U</td><td>1.83</td><td>11/9/16 17:16</td></tr<>	1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 17:16
TetrachloroetheneU10.00U1.4711/9/16 17:161,1,2-TetrachloroethaneU10.00U1.4611/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16ChlorobenzeneI4.0410.003.232.3011/9/16 17:16ChlorobenzeneI4.0410.003.232.3011/9/16 17:16ChlorobenzeneU10.00U1.4611/9/16 17:16Arrison XyleneU10.00U1.4611/9/16 17:16-XyleneU10.00U2.3011/9/16 17:16-XyleneU10.00U2.0311/9/16 17:16,2,3-TrichloropropaneU10.00U2.0311/9/16 17:16,3,5-TrimethylbenzeneU10.00U2.0311/9/16 17:16,3,5-TrimethylbenzeneU10.00U2.0311/9/16 17:16,2,4-TrimethylbenzeneU10.00U2.0311/9/16 17:16,4-DichlorobenzeneU10.00U1.6611/9/16 17:16,2,4-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16AghthaleneU10.00<	Toluene	93.8	10.00	24.89	2.65	11/9/16 17:16
J.1,2-TetrachloroethaneU10.00U1.4611/9/16 17:16ChlorobenzeneU10.00U2.1711/9/16 17:16Chlorobenzene14.0410.003.232.3011/9/16 17:16Chylbenzene14.0410.003.232.3011/9/16 17:16Chylbenzene37.3510.008.62.3011/9/16 17:16ChylbenzeneU10.00U1.4611/9/16 17:16-XyleneU10.00U2.3011/9/16 17:16-XyleneU10.00U2.3011/9/16 17:16,2,3-TrichloropropaneU10.00U2.0311/9/16 17:16,3,5-TrimethylbenzeneU10.00U2.0311/9/16 17:16,2,4-TrimethylbenzeneU10.00U2.0311/9/16 17:16,3-DichlorobenzeneU10.00U1.6611/9/16 17:16,2-DichlorobenzeneU10.00U1.6611/9/16 17:16,2-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,4-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16,2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16.2,3-TrichlorobenzeneU10.00U1.3511/9/16 17:16.2,3-TrichlorobenzeneU <td< td=""><td>1,2-Dibromoethane (EDB)</td><td>U</td><td>10.00</td><td>U</td><td>1.30</td><td>11/9/16 17:16</td></td<>	1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 17:16
Dikorobenzene         U         10.00         U         2.17         11/9/16         17:16           Sthylbenzene         14.04         10.00         3.23         2.30         11/9/16         17:16           Sthylbenzene         37.35         10.00         8.6         2.30         11/9/16         17:16           Sthylbenzene         U         10.00         U         1.46         11/9/16         17:16           -Xylene         U         10.00         U         2.30         11/9/16         17:16           -Xylene         U         10.00         U         2.30         11/9/16         17:16           ,2,3-Trichloropropane         U         10.00         U         2.03         11/9/16         17:16           ,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16         17:16           ,3-Dichlorobenzene         U         10.00         U         2.03         11/9/16         17:16           ,4-Dichlorobenzene         U         10.00         U         2.03         11/9/16         17:16           ,2-A-Trimethylbenzene         U         10.00         U         1.66         11/9/16         17:16	Tetrachloroethene	U	10.00	U	1.47	11/9/16 17:16
Hybenzene       14.04       10.00       3.23       2.30       11/9/16 17:16         Ø & m-Xylene       37.35       10.00       8.6       2.30       11/9/16 17:16         J,2,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 17:16         -Xylene       U       10.00       U       2.30       11/9/16 17:16         2,3-Trichloropropane       U       10.00       U       2.30       11/9/16 17:16         2,3-Trichloropropane       U       10.00       U       2.03       11/9/16 17:16         3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 17:16         3,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         3,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         2,2-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16<	1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 17:16
A m-Xylene       37.35       10.00       8.6       2.30       11/9/16 17:16         ,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/9/16 17:16         -Xylene       U       10.00       U       2.30       11/9/16 17:16         ,2,3-Trichloropropane       U       10.00       U       2.30       11/9/16 17:16         sopropylbenzene       U       10.00       U       2.03       11/9/16 17:16         ,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 17:16         ,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 17:16         ,3-Dichlorobenzene       U       10.00       U       2.03       11/9/16 17:16         ,4-Dichlorobenzene       U       10.00       U       2.03       11/9/16 17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         ,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16<	Chlorobenzene	U	10.00	U	2.17	11/9/16 17:16
1,2,2-TetrachloroethaneU $10.00$ U $1.46$ $11/9/16$ $17:16$ $-Xylene$ U $10.00$ U $2.30$ $11/9/16$ $17:16$ $2,3$ -TrichloropropaneU $10.00$ U $2.30$ $11/9/16$ $17:16$ $3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $2,4$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $3$ -Dichlorobenzene $1,127.89$ E $10.00$ $187.59$ E $1.66$ $11/9/16$ $17:16$ $4$ -DichlorobenzeneU $10.00$ U $1.66$ $11/9/16$ $17:16$ $2,2$ -TrichlorobenzeneU $10.00$ U $1.66$ $11/9/16$ $17:16$ $2,4$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $2,4$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $2,4$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $2,3$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $2,3$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $2,3$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $3,2$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $4,2$ -Trichlorobenzene <td>Ethylbenzene</td> <td>14.04</td> <td></td> <td>3.23</td> <td>2.30</td> <td>11/9/16 17:16</td>	Ethylbenzene	14.04		3.23	2.30	11/9/16 17:16
VXlene       U       10.00       U       2.30       11/9/16 17:16         ,2,3-Trichloropropane       U       10.00       U       1.66       11/9/16 17:16         sopropylbenzene       U       10.00       U       2.03       11/9/16 17:16         ,3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16 17:16         ,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16 17:16         ,4-Dichlorobenzene       U       10.00       U       2.03       11/9/16 17:16         ,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2-A-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.72       11/9/16 17:16 <td>p &amp; m-Xylene</td> <td>37.35</td> <td>10.00</td> <td>8.6</td> <td>2.30</td> <td>11/9/16 17:16</td>	p & m-Xylene	37.35	10.00	8.6	2.30	11/9/16 17:16
2,3-TrichloropropaneU $10.00$ U $1.66$ $11/9/16$ $17:16$ sopropylbenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $2,4$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $3$ -DichlorobenzeneU $10.00$ U $2.03$ $11/9/16$ $17:16$ $4$ -DichlorobenzeneU $10.00$ U $1.66$ $11/9/16$ $17:16$ $2$ -DichlorobenzeneU $10.00$ U $1.66$ $11/9/16$ $17:16$ $2$ -DichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $2,4$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $3,5$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $3,3$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $3,3$ -TrichlorobenzeneU $10.00$ U $1.35$ $11/9/16$ $17:16$ $3,3$ -TrichlorobenzeneU $10.00$ U $1.72$ $11/9/16$ $17:16$ $3,2$ -TrichlorobenzeneU $10.00$ U $1.72$ $11/9/16$ $17:16$ $3,2$ -TrichlorobenzeneU $10.00$ U $1.72$ $11/9/16$ $17:16$ $3,2$ -DichlorobenzeneU $10.00$ U $1.72$ $11/9/16$ $17:16$ $3,2$ -DichlorobenzeneU $10.00$ </td <td>1,1,2,2-Tetrachloroethane</td> <td>U</td> <td>10.00</td> <td>U</td> <td>1.46</td> <td>11/9/16 17:16</td>	1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 17:16
Sopropylbenzene         U         10.00         U         2.03         11/9/16 17:16           ,3,5-Trimethylbenzene         U         10.00         U         2.03         11/9/16 17:16           ,2,4-Trimethylbenzene         U         10.00         U         2.03         11/9/16 17:16           ,3-Dichlorobenzene         U         10.00         U         2.03         11/9/16 17:16           ,4-Dichlorobenzene         U         10.00         U         1.66         11/9/16 17:16           ,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 17:16           ,2-Dichlorobenzene         U         10.00         U         1.66         11/9/16 17:16           ,2-A-Trichlorobenzene         U         10.00         U         1.35         11/9/16 17:16           ,2,4-Trichlorobenzene         U         10.00         U         1.35         11/9/16 17:16           ,2,4-Trichlorobenzene         U         10.00         U         1.35         11/9/16 17:16           ,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16 17:16           -Methylnaphthalene         U         10.00         U         1.72         11/9/16 17:16	o-Xylene	U	10.00	U	2.30	11/9/16 17:16
3,5-Trimethylbenzene       U       10.00       U       2.03       11/9/16       17:16         ,2,4-Trimethylbenzene       U       10.00       U       2.03       11/9/16       17:16         ,3-Dichlorobenzene       U       10.00       U       2.03       11/9/16       17:16         ,3-Dichlorobenzene       U       10.00       U       2.06       11/9/16       17:16         ,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16       17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16       17:16         ,2-A-Trichlorobenzene       U       10.00       U       1.35       11/9/16       17:16         vaphthalene       U       10.00       U       1.35       11/9/16       17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16       17:16         -Methylnaphthalene       U       10.00       U       1.72       11/9/16       17:16         -Z-DCA-d4       95       70-130       A16110916       11/9/16       11/9/1	1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 17:16
Q.4-Trimethylbenzene       U       10.00       U       2.03       11/9/16       17:16         A-Dichlorobenzene <b>1,127.89 E</b> 10.00 <b>187.59 E</b> 1.66       11/9/16       17:16         A-Dichlorobenzene       U       10.00       U       1.66       11/9/16       17:16         A-Dichlorobenzene       U       10.00       U       1.66       11/9/16       17:16         Q-Dichlorobenzene       U       10.00       U       1.66       11/9/16       17:16         Q-2.4-Trichlorobenzene       U       10.00       U       1.35       11/9/16       17:16         Supprime       U       10.00       U       1.35       11/9/16       17:16         Application       U       10.00       U       1.35       11/9/16       17:16         Supprime       U       10.00       U       1.35       11/9/16       17:16         Application       U       10.00       U       1.35       11/9/16       17:16         Superior       Percent Recovery       Limits       Lab File ID       Completed         Question       Percent Recovery       Limits       Lab File ID       Completed         Questione	Isopropylbenzene	U	10.00	U	2.03	11/9/16 17:16
1,127.89 E       10.00       187.59 E       1.66       11/9/16 17:16         ,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         Vaphthalene       U       10.00       U       1.35       11/9/16 17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 17:16         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         ,2-DCA-d4       95       70-130       A16110916       11/9/16 17:16         Foluene-d8       103       70-130       A16110916       11/9/16 17:16	1,3,5-Trimethylbenzene		10.00	U	2.03	11/9/16 17:16
,4-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2-Dichlorobenzene       U       10.00       U       1.66       11/9/16 17:16         ,2,4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         Vaphthalene       U       10.00       U       1.35       11/9/16 17:16         ,2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         2-Methylnaphthalene       U       10.00       U       1.72       11/9/16 17:16         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         ,2-DCA-d4       95       70-130       A16110916       11/9/16 17:16         Foluene-d8       103       70-130       A16110916       11/9/16 17:16	1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 17:16
J2-Dichlorobenzene         U         10.00         U         1.66         11/9/16         17:16           J2-A-Trichlorobenzene         U         10.00         U         1.35         11/9/16         17:16           Naphthalene         U         10.00         U         1.91         11/9/16         17:16           J2-J-Trichlorobenzene         U         10.00         U         1.35         11/9/16         17:16           J2-J-Trichlorobenzene         U         10.00         U         1.35         11/9/16         17:16           P-Methylnaphthalene         U         10.00         U         1.72         11/9/16         17:16           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           J2-DCA-d4         95         70-130         A16110916         11/9/16         17:16           Foluene-d8         103         70-130         A16110916         11/9/16         17:16	1,3-Dichlorobenzene	1,127.89 E	10.00	187.59 E	1.66	11/9/16 17:16
Q.4-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         Naphthalene       U       10.00       U       1.91       11/9/16 17:16         Agentiation of the second	1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 17:16
Naphthalene         U         10.00         U         1.91         11/9/16         17:16           ,2,3-Trichlorobenzene         U         10.00         U         1.35         11/9/16         17:16           -Methylnaphthalene         U         10.00         U         1.72         11/9/16         17:16           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           ,2-DCA-d4         95         70-130         A16110916         11/9/16         17:16           Foluene-d8         103         70-130         A16110916         11/9/16         17:16	1,2-Dichlorobenzene	U	10.00	U	1.66	
J. 2,3-Trichlorobenzene       U       10.00       U       1.35       11/9/16 17:16         A-Methylnaphthalene       U       10.00       U       1.72       11/9/16 17:16         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         g-DCA-d4       95       70-130       A16110916       11/9/16 17:16         Foluene-d8       103       70-130       A16110916       11/9/16 17:16	1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 17:16
J-Methylnaphthalene         U         10.00         U         1.72         11/9/16 17:16           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           q-DCA-d4         95         70-130         A16110916         11/9/16 17:16           Foluene-d8         103         70-130         A16110916         11/9/16 17:16	Naphthalene					11/9/16 17:16
SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           ,2-DCA-d4         95         70-130         A16110916         11/9/16 17:16           Foluene-d8         103         70-130         A16110916         11/9/16 17:16	1,2,3-Trichlorobenzene	U	10.00		1.35	11/9/16 17:16
,2-DCA-d49570-130A1611091611/9/16 17:16Foluene-d810370-130A1611091611/9/16 17:16	2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 17:16
,2-DCA-d49570-130A1611091611/9/16 17:16Foluene-d810370-130A1611091611/9/16 17:16						
,2-DCA-d49570-130A1611091611/9/16 17:16Foluene-d810370-130A1611091611/9/16 17:16	SURROGATES		Limits	Lab File ID		Completed
	1,2-DCA-d4	95	70-130	A16110916		
Image: Stromofluorobenzene         Image: Image: Stromofluorobenzene         Image: Stromofluorobenzene         Image: Image: Stromofluorobenzene         Image: Stromofluorobenzene <td>Toluene-d8</td> <td>103</td> <td>70-130</td> <td>A16110916</td> <td></td> <td>11/9/16 17:16</td>	Toluene-d8	103	70-130	A16110916		11/9/16 17:16
	Bromofluorobenzene	105	70-130	A16110916		11/9/16 17:16

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110918
Beacon Sample ID:	G0166889
Client ID/Sampling Location:	SV-08-05
Date Time Collected:	11/2/16 1:52 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	6:05:00 PM
Beacon Job Number:	3588B

	Results	LOQ	Results	LOO	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	Ŭ	10.00	U	3.91	11/9/16 18:05
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 18:05
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 18:05
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 18:05
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 18:05
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 18:05
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 18:05
Chloroform	U	10.00	U	2.05	11/9/16 18:05
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 18:05
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 18:05
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 18:05
Benzene	U	10.00	U	3.13	11/9/16 18:05
Trichloroethene	U	10.00	U	1.86	11/9/16 18:05
1,4-Dioxane	U	10.00	U	2.77	11/9/16 18:05
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 18:05
Toluene	65.96	10.00	17.5	2.65	11/9/16 18:05
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 18:05
Tetrachloroethene	U	10.00	U	1.47	11/9/16 18:05
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 18:05
Chlorobenzene	U	10.00	U	2.17	11/9/16 18:05
Ethylbenzene	11.07	10.00	2.55	2.30	11/9/16 18:05
p & m-Xylene	30.27	10.00	6.97	2.30	11/9/16 18:05
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 18:05
o-Xylene	U	10.00	U	2.30	11/9/16 18:05
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 18:05
Isopropylbenzene	U	10.00	U	2.03	11/9/16 18:05
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 18:05
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 18:05
1,3-Dichlorobenzene	904.26 E	10.00	150.39 E	1.66	11/9/16 18:05
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 18:05
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 18:05
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 18:05
Naphthalene	59.69	10.00	11.39	1.91	11/9/16 18:05
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 18:05
2-Methylnaphthalene	16.43	10.00	2.82	1.72	11/9/16 18:05
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	96	70-130	A16110918		11/9/16 18:05
Toluene-d8	104	70-130	A16110918		11/9/16 18:05
Bromofluorobenzene	105	70-130	A16110918		11/9/16 18:05

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110920
Beacon Sample ID:	H0232630
Client ID/Sampling Location:	SV-08-06
Date Time Collected:	11/2/16 2:15 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	6:51:00 PM
Beacon Job Number:	3588B

Deucon soo ramoor.	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	pp0v U	3.91	11/9/16 18:51
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 18:51
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 18:51
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 18:51
Methyl-t-butyl ether	U	10.00	U	2.32	11/9/16 18:51
	U	10.00	U	2.17	11/9/16 18:51
1,1-Dichloroethane					
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 18:51
Chloroform	U	10.00	U	2.05	11/9/16 18:51
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 18:51
1,1,1-Trichloroethane	18.38	10.00	3.37	1.83	11/9/16 18:51
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 18:51
Benzene	U	10.00	U	3.13	11/9/16 18:51
Trichloroethene	U	10.00	U	1.86	11/9/16 18:51
1,4-Dioxane	U	10.00	U	2.77	11/9/16 18:51
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 18:51
Toluene	70.62	10.00	18.74	2.65	11/9/16 18:51
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 18:51
Tetrachloroethene	U	10.00	U	1.47	11/9/16 18:51
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 18:51
Chlorobenzene	U	10.00	U	2.17	11/9/16 18:51
Ethylbenzene	12.02	10.00	2.77	2.30	11/9/16 18:51
p & m-Xylene	33.56	10.00	7.73	2.30	11/9/16 18:51
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 18:51
o-Xylene	U	10.00	U	2.30	11/9/16 18:51
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 18:51
Isopropylbenzene	U	10.00	U	2.03	11/9/16 18:51
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 18:51
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 18:51
1,3-Dichlorobenzene	974.36 E	10.00	162.05 E	1.66	11/9/16 18:51
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 18:51
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 18:51
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 18:51
Naphthalene	12.95	10.00	2.47	1.91	11/9/16 18:51
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 18:51
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 18:51
	0	10.00	0	1.72	11/7/10 10:51
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	<u>97</u>	70-130	A16110920		11/9/16 18:51
Toluene-d8	104	70-130	A16110920		11/9/16 18:51
Bromofluorobenzene	107	70-130	A16110920		11/9/16 18:51
Bromonuorobenzene	107	/0-130	A10110920		11/9/10 18:31

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110922
Beacon Sample ID:	1101399
Client ID/Sampling Location:	SV-08-02
Date Time Collected:	11/2/16 2:50 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	7:38:00 PM
Beacon Job Number:	3588B

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 19:38
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 19:38
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 19:38
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 19:38
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 19:38
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 19:38
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 19:38
Chloroform	U	10.00	U	2.05	11/9/16 19:38
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 19:38
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 19:38
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 19:38
Benzene	U	10.00	U	3.13	11/9/16 19:38
Trichloroethene	U	10.00	U	1.86	11/9/16 19:38
1,4-Dioxane	U	10.00	U	2.77	11/9/16 19:38
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 19:38
Toluene	21.02	10.00	5.58	2.65	11/9/16 19:38
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 19:38
Tetrachloroethene	U	10.00	U	1.47	11/9/16 19:38
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 19:38
Chlorobenzene	U	10.00	U	2.17	11/9/16 19:38
Ethylbenzene	U	10.00	U	2.30	11/9/16 19:38
p & m-Xylene	U	10.00	U	2.30	11/9/16 19:38
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 19:38
o-Xylene	U	10.00	U	2.30	11/9/16 19:38
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 19:38
Isopropylbenzene	U	10.00	U	2.03	11/9/16 19:38
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 19:38
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 19:38
1,3-Dichlorobenzene	113.95	10.00	18.95	1.66	11/9/16 19:38
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 19:38
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 19:38
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 19:38
Naphthalene	U	10.00	U	1.91	11/9/16 19:38
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 19:38
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 19:38
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	93	70-130	A16110922		11/9/16 19:38
Toluene-d8	105	70-130	A16110922		11/9/16 19:38
Bromofluorobenzene	109	70-130	A16110922		11/9/16 19:38

# Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110924
Beacon Sample ID:	H0234844
Client ID/Sampling Location:	SV-08-09
Date Time Collected:	11/2/16 4:36 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	8:24:00 PM
Beacon Job Number:	3588B

Vinyl ChlorideU10.00U3.91111,1-DichloroetheneU10.00U2.52111,1,2-TrichlorottifluoroethaneU10.00U2.52111,1-ZritchloroetheneU10.00U2.52111,1-DichloroethaneU10.00U2.52111,1-DichloroethaneU10.00U2.77111,1-DichloroethaneU10.00U2.4711cis-1,2-DichloroethaneU10.00U2.52111,2-DichloroethaneU10.00U2.4711cis-1,2-DichloroethaneU10.00U2.47111,2-DichloroethaneU10.00U2.47111,1-TrichloroethaneU10.00U2.47111,1,1-TrichloroethaneU10.00U1.8311Carbon TetrachlorideU10.00U1.8311FrichloroethaneU10.00U1.86111,1,2-TrichloroethaneU10.00U1.86111,1,2-TrichloroethaneU10.00U1.3011Toluene <b>45.32</b> 10.00 <b>12.03</b> 2.65111,1,2-TetachloroethaneU10.00U1.4611ChlorobenzeneU10.00U2.30111,1,2-TetrachloroethaneU10.00U2.30111,1,2,2-Tetrachloroetha	Completed           /9/16 20:24           /9/16 20:24           /9/16 20:24           /9/16 20:24           /9/16 20:24           /9/16 20:24           /9/16 20:24           /9/16 20:24           /9/16 20:24
1,1-DichloroetheneU10.00U2.5211/1,1,2-Trichlorottifluoroethane (Fr.113)U10.00U1.3011/trans-1,2-DichloroetheneU10.00U2.5211/Methyl-t-butyl etherU10.00U2.7711/1,1-DichloroethaneU10.00U2.7711/1,1-DichloroethaneU10.00U2.5211/ChloroformU10.00U2.5211/1,2-DichloroethaneU10.00U2.5211/1,1-TrichloroethaneU10.00U2.6511/1,1-TrichloroethaneU10.00U1.8311/Carbon TetrachlorideU10.00U3.1311/TrichloroethaneU10.00U3.1311/1,2-DichloroethaneU10.00U3.1311/1,2-DichloroethaneU10.00U3.1311/1,1-TrichloroethaneU10.00U1.8611/1,2-DichloroethaneU10.00U1.8311/1,2-DichloroethaneU10.00U1.8311/1,2-DichloroethaneU10.00U1.4711/1,1,2-TrichloroethaneU10.00U1.4611/1,2-Dibromoethane (EDB)U10.00U1.4611/1,1,1,2-TetrachloroethaneU10.00U2.3011/	<ul> <li>/9/16 20:24</li> <li>/9/16 20:24</li> <li>/9/16 20:24</li> <li>/9/16 20:24</li> <li>/9/16 20:24</li> <li>/9/16 20:24</li> </ul>
1,1,2-Trichlorotrifluoroethane (Fr.113)U10.00U1.3011/ trans-1,2-Dichloroethane11/ U10.00U2.5211/ UMethyl-t-butyl etherU10.00U2.7711/1,1-DichloroethaneU10.00U2.4711/cis-1,2-DichloroethaneU10.00U2.5211/ChloroethaneU10.00U2.5211/ChloroformU10.00U2.4711/1,2-DichloroethaneU10.00U2.4711/1,1-TrichloroethaneU10.00U2.4711/1,1-TrichloroethaneU10.00U1.8311/Carbon TetrachlorideU10.00U1.8311/BenzeneU10.00U1.8611/1,1,2-TrichloroethaneU10.00U1.8311/1,1,2-TrichloroethaneU10.00U1.3011/1,1,2-TrichloroethaneU10.00U1.3011/1,1,2-TetrachloroethaneU10.00U1.4611/1,1,2-TetrachloroethaneU10.00U2.3011/1,1,2-TetrachloroethaneU10.00U2.3011/1,1,2-TetrachloroethaneU10.00U2.3011/1,1,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.301	/9/16 20:24 /9/16 20:24 /9/16 20:24 /9/16 20:24 /9/16 20:24
trans-1,2-DichloroetheneU10.00U2.5211/ Methyl-t-butyl ether1,1-DichloroethaneU10.00U2.7711/ 11/ cis-1,2-DichloroethaneU10.00U2.4711/ 2.52ChloroformU10.00U2.651,1-DichloroethaneU10.00U2.471,1,1-TrichloroethaneU10.00U2.471,1,1-TrichloroethaneU10.00U2.471,1,1-TrichloroethaneU10.00U1.831/Carbon TetrachlorideU10.00U1.831/TrichloroethaneU10.00U3.131/TrichloroethaneU10.00U3.131/,1,2-TrichloroethaneU10.00U1.861/,2-Dibromoethane (EDB)U10.00U1.301/TetrachloroethaneU10.00U1.461/,1,2-TetrachloroethaneU10.00U1.461/,1,2-TetrachloroethaneU10.00U2.301/1,1,2,2-TetrachloroethaneU10.00U2.301/1,1,2,2-TetrachloroethaneU10.00U2.301/1,1,2,2-TetrachloroethaneU10.00U2.301/1,1,2,2-TetrachloroethaneU10.00U2.301/1,2,3-TrichloropthaneU10.00U2.301/1,2,3-TrichloropthaneU10.	/9/16 20:24 /9/16 20:24 /9/16 20:24 /9/16 20:24
Methyl-t-butyl etherU $10.00$ U $2.77$ $11/1$ 1,1-DichloroethaneU $10.00$ U $2.47$ $11/1$ cis-1,2-DichloroethaneU $10.00$ U $2.52$ $11/1$ ChloroformU $10.00$ U $2.52$ $11/1$ 1,2-DichloroethaneU $10.00$ U $2.52$ $11/1$ 1,1-TrichloroethaneU $10.00$ U $2.47$ $11/1$ 1,1,1-TrichloroethaneU $10.00$ U $1.83$ $11/1$ Carbon TetrachlorideU $10.00$ U $1.59$ $11/1$ BenzeneU $10.00$ U $3.13$ $11/1$ TrichloroetheneU $10.00$ U $2.77$ $11/1$ 1,1,2-TrichloroethaneU $10.00$ U $2.77$ $11/1$ 1,1,2-TrichloroethaneU $10.00$ U $1.83$ $11/1$ Toluene <b>45.32</b> $10.00$ U $1.83$ $11/1$ 1,2-Dibromoethane (EDB)U $10.00$ U $1.47$ $11/1$ 1,1,2-TetrachloroethaneU $10.00$ U $2.30$ $11/1$ 1,1,2-TetrachloroethaneU $10.00$ U $2.30$ $11/1$ 1,1,2-TetrachloroethaneU $10.00$ U $2.30$ $11/1$ 1,2,3-TrichlorophaneU $10.00$ U $2.30$ $11/1$ 1,2,3-TrichlorophaneU $10.00$ U $2.03$ $11/1$ 1,2,3-TrichlorophaneU $10.00$ U $2.03$	/9/16 20:24 /9/16 20:24 /9/16 20:24
I,1-DichloroethaneU10.00U2.4711//cis-1,2-DichloroethaneU10.00U2.5211//ChloroformU10.00U2.0511//1,2-DichloroethaneU10.00U2.4711//1,1-TrichloroethaneU10.00U2.4711//1,1-TrichloroethaneU10.00U1.8311//Carbon TetrachlorideU10.00U1.5911//BenzeneU10.00U3.1311//TrichloroetheneU10.00U1.8611//1,4-DioxaneU10.00U1.8311//Toluene <b>45.32</b> 10.00 <b>12.03</b> 2.6511//1,2-Dibromoethane (EDB)U10.00U1.3011//TetrachloroethaneU10.00U1.4611//1,1,2-TetrachloroethaneU10.00U2.1711//1,1,2-TetrachloroethaneU10.00U2.3011//1,2-Dibromoethane (EDB)U10.00U2.1711//1,1,2-TetrachloroethaneU10.00U2.3011//1,2-TetrachloroethaneU10.00U2.3011//1,2,2-TetrachloroethaneU10.00U2.3011//1,2,3-TrichloroptopaneU10.00U2.0311//1,3,5-TrimethylbenzeneU10.00U2.0311//<	/9/16 20:24 /9/16 20:24
cis-1,2-DichloroetheneU10.00U2.5211/ChloroformU10.00U2.0511/1,2-DichloroethaneU10.00U2.4711/1,1,1-TrichloroethaneU10.00U1.8311/Carbon TetrachlorideU10.00U1.5911/BenzeneU10.00U3.1311/TrichloroetheneU10.00U3.1311/1,4-DioxaneU10.00U2.7711/1,1,2-TrichloroethaneU10.00U1.8311/Toluene <b>45.32</b> 10.0012.032.6511/1,2-Dibromoethane (EDB)U10.00U1.3011/1,1,1,2-TetrachloroethaneU10.00U1.4611/1,1,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.3011/1,2,2-TetrachloroethaneU10.00U2.3011/1,2,2-TetrachloroethaneU10.00U2.0311/1,2,3-TrichloropopaneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,3-DichlorobenzeneU10.00U2.0311/ <trr< td=""><td>/9/16 20:24</td></trr<>	/9/16 20:24
ChloroformU $10.00$ U $2.05$ $11/1$ $1,2$ -DichloroethaneU $10.00$ U $2.47$ $11/1$ $1,1,1$ -TrichloroethaneU $10.00$ U $1.83$ $11/1$ Carbon TetrachlorideU $10.00$ U $1.59$ $11/1$ BenzeneU $10.00$ U $3.13$ $11/1$ TrichloroetheneU $10.00$ U $3.13$ $11/1$ I,4-DioxaneU $10.00$ U $2.77$ $11/1$ $1,1,2$ -TrichloroethaneU $10.00$ U $1.83$ $11/1$ Toluene <b>45.32</b> $10.00$ U $1.30$ $11/1$ Tetrachloroethane (EDB)U $10.00$ U $1.30$ $11/1$ $1,1,2$ -TrichloroethaneU $10.00$ U $1.46$ $11/1$ ChlorobenzeneU $10.00$ U $2.30$ $11/1$ $1,1,2,2$ -TetrachloroethaneU $10.00$ U $2.30$ $11/1$ $1,2,2$ -TetrachloroethaneU $10.00$ U $2.30$ $11/1$ $1,2,3$ -TrichloroptopaneU $10.00$ U $2.03$ $11/1$ $1,2,3$ -TrinchloroptopaneU $10.00$ U $2.03$ $11/1$ $1,3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/1$ $1,3$ -DichlorobenzeneU $10.00$ U $2.03$ $11/1$ $1,3$ -DichlorobenzeneU $10.00$ U $2.03$ $11/1$ $1,3$ -DichlorobenzeneU $10.00$ U <td< td=""><td></td></td<>	
1,2-DichloroethaneU10.00U2.4711/11,1,1-TrichloroethaneU10.00U1.8311/1Carbon TetrachlorideU10.00U1.5911/1BenzeneU10.00U3.1311/1TrichloroetheneU10.00U3.1311/1I,4-DioxaneU10.00U2.7711/11,1,2-TrichloroethaneU10.00U2.6511/11,1,2-TrichloroethaneU10.00U1.8311/1Toluene <b>45.32</b> 10.00 <b>12.03</b> 2.6511/11,2-Dibromoethane (EDB)U10.00U1.3011/11,1,2-TetrachloroethaneU10.00U1.4611/11,1,1,2-TetrachloroethaneU10.00U2.1711/11,1,2-TetrachloroethaneU10.00U2.3011/11,1,2-TetrachloroethaneU10.00U2.3011/11,1,2-TetrachloroethaneU10.00U2.3011/11,1,2-TetrachloroethaneU10.00U2.3011/11,1,2-TetrachloroethaneU10.00U2.3011/11,2,3-TrichloropropaneU10.00U2.3011/11,2,3-TrichloropropaneU10.00U2.0311/11,3,5-TrimethylbenzeneU10.00U2.0311/11,3,5-TrimethylbenzeneU10.00U <td< td=""><td></td></td<>	
1,1,1-TrichloroethaneU10.00U1.8311/ Carbon TetrachlorideCarbon TetrachlorideU10.00U1.5911/BenzeneU10.00U3.1311/TrichloroetheneU10.00U1.8611/1,4-DioxaneU10.00U2.7711/1,1,2-TrichloroethaneU10.00U1.8311/Toluene <b>45.32</b> 10.0012.032.6511/1,2-Dibromoethane (EDB)U10.00U1.3011/TetrachloroetheneU10.00U1.4611/1,1,1,2-TetrachloroethaneU10.00U2.1711/1,1,1,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.3011/1,1,2,2-TetrachloroethaneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
Carbon TetrachlorideU $10.00$ U $1.59$ $11/1$ BenzeneU $10.00$ U $3.13$ $11/1$ TrichloroetheneU $10.00$ U $1.86$ $11/1$ I,4-DioxaneU $10.00$ U $2.77$ $11/1$ I,1,2-TrichloroethaneU $10.00$ U $2.77$ $11/1$ Toluene <b>45.32</b> $10.00$ U $1.83$ $11/1$ Toluene <b>45.32</b> $10.00$ U $1.30$ $11/1$ I,2-Dibromoethane (EDB)U $10.00$ U $1.30$ $11/1$ TetrachloroetheneU $10.00$ U $1.47$ $11/1$ I,1,2.2-TetrachloroethaneU $10.00$ U $2.30$ $11/1$ EthylbenzeneU $10.00$ U $2.30$ $11/1$ EthylbenzeneU $10.00$ U $2.30$ $11/1$ I,2,2-TetrachloroethaneU $10.00$ U $2.30$ $11/1$ $0-Xylene$ U $10.00$ U $2.30$ $11/1$ $1,2,3-TrichloropropaneU10.00U2.0311/11,3,5-TrimethylbenzeneU10.00U2.0311/11,3,5-TrimethylbenzeneU10.00U2.0311/11,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/11,4-DichlorobenzeneU10.00U1.6611/1$	/9/16 20:24
Benzene         U         10.00         U         3.13         11/           Trichloroethene         U         10.00         U         1.86         11/           1,4-Dioxane         U         10.00         U         2.77         11/           1,1,2-Trichloroethane         U         10.00         U         1.83         11/           Toluene         45.32         10.00         U         1.83         11/           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/           Tetrachloroethene         U         10.00         U         1.47         11/           1,1,1,2-Tetrachloroethane         U         10.00         U         1.46         11/           1,1,1,2-Tetrachloroethane         U         10.00         U         2.17         11/           1,1,1,2-Tetrachloroethane         U         10.00         U         2.30         11/           1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/           1,2,3-Trichloropropane         U         10.00         U         2.30         11/           1,2,3-Trichloropropane         U         10.00         U         2.03<	/9/16 20:24
TrichloroetheneU $10.00$ U $1.86$ $11/1$ $1,4$ -DioxaneU $10.00$ U $2.77$ $11/1$ $1,1,2$ -TrichloroethaneU $10.00$ U $1.83$ $11/1$ Toluene <b>45.32</b> $10.00$ <b>12.03</b> $2.65$ $11/1$ $1,2$ -Dibromoethane (EDB)U $10.00$ U $1.30$ $11/1$ TetrachloroetheneU $10.00$ U $1.47$ $11/1$ $1,1,1,2$ -TetrachloroethaneU $10.00$ U $1.46$ $11/1$ ChlorobenzeneU $10.00$ U $2.17$ $11/1$ EthylbenzeneU $10.00$ U $2.30$ $11/1$ $p$ & m-Xylene <b>23.46</b> $10.00$ <b>5.4</b> $2.30$ $11/1$ $1,2,2$ -TetrachloroethaneU $10.00$ U $2.30$ $11/1$ $1,2,3$ -TrichloropropaneU $10.00$ U $2.30$ $11/1$ $1,3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/1$ $1,2,4$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/1$ $1,3$ -Dichlorobenzene <b>834.78 E</b> $10.00$ <b>138.84 E</b> $1.66$ $11/1$ $1,4$ -DichlorobenzeneU $10.00$ U $1.66$ $11/1$	/9/16 20:24
1,4-DioxaneU10.00U2.7711/1,1,2-TrichloroethaneU10.00U1.8311/Toluene <b>45.32</b> 10.00 <b>12.03</b> 2.6511/1,2-Dibromoethane (EDB)U10.00U1.3011/TetrachloroethaneU10.00U1.4711/1,1,1,2-TetrachloroethaneU10.00U1.4611/ChlorobenzeneU10.00U2.1711/EthylbenzeneU10.00U2.3011/p & m-Xylene <b>23.46</b> 10.00 <b>5.4</b> 2.3011/1,1,2,2-TetrachloroethaneU10.00U1.4611/o-XyleneU10.00U2.3011/1,2,3-TrichloroptopaneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-DichlorobenzeneU10.00U2.0311/1,4-DichlorobenzeneU10.00U2.0311/1,4-DichlorobenzeneU10.00U2.0311/1,4-DichlorobenzeneU10.00U1.6611/1,4-DichlorobenzeneU10.00U1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
1,1,2-TrichloroethaneU10.00U1.8311/Toluene45.3210.0012.032.6511/1,2-Dibromoethane (EDB)U10.00U1.3011/TetrachloroethaneU10.00U1.4711/1,1,2-TetrachloroethaneU10.00U1.4611/ChlorobenzeneU10.00U2.1711/EthylbenzeneU10.00U2.3011/p & m-Xylene23.4610.005.42.3011/1,1,2,2-TetrachloroethaneU10.00U1.4611/c-XyleneU10.00U2.3011/1,2,3-TrichloroethaneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-DichlorobenzeneB34.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
Toluene45.3210.0012.032.6511/1,2-Dibromoethane (EDB)U10.00U1.3011/TetrachloroethaneU10.00U1.4711/1,1,1,2-TetrachloroethaneU10.00U1.4611/ChlorobenzeneU10.00U2.1711/EthylbenzeneU10.00U2.3011/p & m-Xylene23.4610.005.42.3011/1,1,2,2-TetrachloroethaneU10.00U1.4611/o-XyleneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
Toluene45.3210.0012.032.6511/1,2-Dibromoethane (EDB)U10.00U1.3011/TetrachloroethaneU10.00U1.4711/1,1,1,2-TetrachloroethaneU10.00U1.4611/ChlorobenzeneU10.00U2.1711/EthylbenzeneU10.00U2.3011/p & m-Xylene23.4610.005.42.3011/1,1,2,2-TetrachloroethaneU10.00U1.4611/o-XyleneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
TetrachloroetheneU $10.00$ U $1.47$ $11/1$ $1,1,1,2$ -TetrachloroethaneU $10.00$ U $1.46$ $11/1$ ChlorobenzeneU $10.00$ U $2.17$ $11/1$ EthylbenzeneU $10.00$ U $2.30$ $11/1$ p & m-Xylene <b>23.46</b> $10.00$ <b>5.4</b> $2.30$ $11/1$ $1,1,2,2$ -TetrachloroethaneU $10.00$ U $1.46$ $11/1$ $o$ -XyleneU $10.00$ U $2.30$ $11/1$ $1,2,3$ -TrichloropropaneU $10.00$ U $2.30$ $11/1$ $1,3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/1$ $1,2,4$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/1$ $1,3$ -Dichlorobenzene <b>834.78 E</b> $10.00$ <b>138.84 E</b> $1.66$ $11/1$ $1,4$ -DichlorobenzeneU $10.00$ U $1.66$ $11/1$	/9/16 20:24
1,1,1,2-TetrachloroethaneU $10.00$ U $1.46$ $11/2$ ChlorobenzeneU $10.00$ U $2.17$ $11/2$ EthylbenzeneU $10.00$ U $2.30$ $11/2$ p & m-Xylene <b>23.46</b> $10.00$ <b>5.4</b> $2.30$ $11/2$ $1,1,2,2$ -TetrachloroethaneU $10.00$ U $1.46$ $11/2$ $0-Xylene$ U $10.00$ U $2.30$ $11/2$ $1,2,3$ -TrichloropropaneU $10.00$ U $2.30$ $11/2$ $1,3,5$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/2$ $1,2,4$ -TrimethylbenzeneU $10.00$ U $2.03$ $11/2$ $1,3$ -Dichlorobenzene <b>834.78 E</b> $10.00$ <b>138.84 E</b> $1.66$ $11/2$ $1,4$ -DichlorobenzeneU $10.00$ U $1.66$ $11/2$	/9/16 20:24
ChlorobenzeneU10.00U2.1711/EthylbenzeneU10.00U2.3011/p & m-Xylene <b>23.46</b> 10.00 <b>5.4</b> 2.3011/1,1,2,2-TetrachloroethaneU10.00U1.4611/o-XyleneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.3011/IsopropylbenzeneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene <b>834.78 E</b> 10.00 <b>138.84 E</b> 1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
EthylbenzeneU10.00U2.3011/p & m-Xylene <b>23.46</b> 10.00 <b>5.4</b> 2.3011/1,1,2,2-TetrachloroethaneU10.00U1.4611/o-XyleneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.3011/1,2,3-TrichloropropaneU10.00U2.0311/IsopropylbenzeneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene <b>834.78 E</b> 10.00 <b>138.84 E</b> 1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
p & m-Xylene       23.46       10.00       5.4       2.30       11/         1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/         o-Xylene       U       10.00       U       2.30       11/         1,2,3-Trichloropropane       U       10.00       U       2.30       11/         1,2,3-Trichloropropane       U       10.00       U       2.30       11/         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/         1,3-Dichlorobenzene       834.78 E       10.00       138.84 E       1.66       11/         1,4-Dichlorobenzene       U       10.00       U       1.66       11/	/9/16 20:24
1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/         o-Xylene       U       10.00       U       2.30       11/         1,2,3-Trichloropropane       U       10.00       U       1.66       11/         1,2,3-Trichloropropane       U       10.00       U       2.03       11/         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/         1,3-Dichlorobenzene       834.78 E       10.00       138.84 E       1.66       11/         1,4-Dichlorobenzene       U       10.00       U       1.66       11/	/9/16 20:24
o-Xylene         U         10.00         U         2.30         11/           1,2,3-Trichloropropane         U         10.00         U         1.66         11/           Isopropylbenzene         U         10.00         U         2.03         11/           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/           1,3-Dichlorobenzene         834.78 E         10.00         138.84 E         1.66         11/           1,4-Dichlorobenzene         U         10.00         U         1.66         11/	/9/16 20:24
1,2,3-TrichloropropaneU10.00U1.6611/IsopropylbenzeneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
IsopropylbenzeneU10.00U2.0311/1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
1,3,5-TrimethylbenzeneU10.00U2.0311/1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
1,2,4-TrimethylbenzeneU10.00U2.0311/1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
1,3-Dichlorobenzene834.78 E10.00138.84 E1.6611/1,4-DichlorobenzeneU10.00U1.6611/	/9/16 20:24
1,4-Dichlorobenzene U 10.00 U 1.66 11/	/9/16 20:24
	/9/16 20:24
1,2-Dichlorobenzene U 10.00 U 1.66 11/	/9/16 20:24
	/9/16 20:24
1,2,4-Trichlorobenzene U 10.00 U 1.35 11/	/9/16 20:24
	/9/16 20:24
	/9/16 20:24
2-Methylnaphthalene U 10.00 U 1.72 11/	/9/16 20:24
SURROGATES Percent Recovery Limits Lab File ID C	Completed
	/9/16 20:24
Toluene-d8 104 70-130 A16110924 11/	0/16 20.24
Bromofluorobenzene 109 70-130 A16110924 11/	/9/16 20:24

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110926
Beacon Sample ID:	G0177969
Client ID/Sampling Location:	SV-08-10
Date Time Collected:	11/2/16 4:56 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	9:10:00 PM
Beacon Job Number:	3588B
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 21:10
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 21:10
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 21:10
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 21:10
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 21:10
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 21:10
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 21:10
Chloroform	U	10.00	U	2.05	11/9/16 21:10
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 21:10
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 21:10
Carbon Tetrachloride	11.31	10.00	1.8	1.59	11/9/16 21:10
Benzene	U	10.00	U	3.13	11/9/16 21:10
Trichloroethene	U	10.00	U	1.86	11/9/16 21:10
1,4-Dioxane	U	10.00	U	2.77	11/9/16 21:10
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 21:10
Toluene	47.67	10.00	12.65	2.65	11/9/16 21:10
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 21:10
Tetrachloroethene	U	10.00	U	1.47	11/9/16 21:10
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 21:10
Chlorobenzene	U	10.00	U	2.17	11/9/16 21:10
Ethylbenzene	10.95	10.00	2.52	2.30	11/9/16 21:10
p & m-Xylene	27.47	10.00	6.33	2.30	11/9/16 21:10
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 21:10
o-Xylene	U	10.00	U	2.30	11/9/16 21:10
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 21:10
Isopropylbenzene	U	10.00	U	2.03	11/9/16 21:10
1,3,5-Trimethylbenzene	17.41	10.00	3.54	2.03	11/9/16 21:10
1,2,4-Trimethylbenzene	46.07	10.00	9.37	2.03	11/9/16 21:10
1,3-Dichlorobenzene	626.19 E	10.00	104.14 E	1.66	11/9/16 21:10
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 21:10
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 21:10
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 21:10
Naphthalene	55.0	10.00	10.49	1.91	11/9/16 21:10
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 21:10
2-Methylnaphthalene	13.25	10.00	2.28	1.72	11/9/16 21:10
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	93	70-130	A16110926		11/9/16 21:10
Toluene-d8	104	70-130	A16110926		11/9/16 21:10
Bromofluorobenzene	111	70-130	A16110926		11/9/16 21:10

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110928
Beacon Sample ID:	H0234580
Client ID/Sampling Location:	SV-03-03
Date Time Collected:	11/3/16 9:10 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	10:00:00 PM
Beacon Job Number:	3588B
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 22:00
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 22:00
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 22:00
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 22:00
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 22:00
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 22:00
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 22:00
Chloroform	U	10.00	U	2.05	11/9/16 22:00
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 22:00
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 22:00
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 22:00
Benzene	U	10.00	U	3.13	11/9/16 22:00
Trichloroethene	U	10.00	U	1.86	11/9/16 22:00
1,4-Dioxane	U	10.00	U	2.77	11/9/16 22:00
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 22:00
Toluene	U	10.00	U	2.65	11/9/16 22:00
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 22:00
Tetrachloroethene	U	10.00	U	1.47	11/9/16 22:00
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 22:00
Chlorobenzene	U	10.00	U	2.17	11/9/16 22:00
Ethylbenzene	U	10.00	U	2.30	11/9/16 22:00
p & m-Xylene	U	10.00	U	2.30	11/9/16 22:00
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 22:00
o-Xylene	U	10.00	U	2.30	11/9/16 22:00
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 22:00
Isopropylbenzene	U	10.00	U	2.03	11/9/16 22:00
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 22:00
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 22:00
1,3-Dichlorobenzene	56.82	10.00	9.45	1.66	11/9/16 22:00
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 22:00
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 22:00
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 22:00
Naphthalene	U	10.00	U	1.91	11/9/16 22:00
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 22:00
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 22:00
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	92	70-130	A16110928		11/9/16 22:00
Toluene-d8	103	70-130	A16110928		11/9/16 22:00
Bromofluorobenzene	107	70-130	A16110928		11/9/16 22:00

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110930
Beacon Sample ID:	G0178581
Client ID/Sampling Location:	SV-03-02
Date Time Collected:	11/3/16 9:26 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	10:46:00 PM
Beacon Job Number:	3588B
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 22:46
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 22:46
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 22:46
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 22:46
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 22:46
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 22:46
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 22:46
Chloroform	U	10.00	U	2.05	11/9/16 22:46
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 22:46
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 22:46
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 22:46
Benzene	U	10.00	U	3.13	11/9/16 22:46
Trichloroethene	U	10.00	U	1.86	11/9/16 22:46
1,4-Dioxane	U	10.00	U	2.77	11/9/16 22:46
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 22:46
Toluene	U	10.00	U	2.65	11/9/16 22:46
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 22:46
Tetrachloroethene	76.08	10.00	11.22	1.47	11/9/16 22:46
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 22:46
Chlorobenzene	U	10.00	U	2.17	11/9/16 22:46
Ethylbenzene	U	10.00	U	2.30	11/9/16 22:46
p & m-Xylene	U	10.00	U	2.30	11/9/16 22:46
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 22:46
o-Xylene	U	10.00	U	2.30	11/9/16 22:46
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 22:46
Isopropylbenzene	U	10.00	U	2.03	11/9/16 22:46
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 22:46
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 22:46
1,3-Dichlorobenzene	30.19	10.00	5.02	1.66	11/9/16 22:46
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 22:46
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 22:46
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 22:46
Naphthalene	U	10.00	U	1.91	11/9/16 22:46
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 22:46
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 22:46
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SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	93	70-130	A16110930		11/9/16 22:46
Toluene-d8					11/0/16 22 46
	104	70-130	A16110930		11/9/16 22:46

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110932
Beacon Sample ID:	H0234875
Client ID/Sampling Location:	SV-03-01
Date Time Collected:	11/3/16 9:41 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/9/2016
Analysis Time:	11:32:00 PM
Beacon Job Number:	3588B
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/9/16 23:32
1,1-Dichloroethene	U	10.00	U	2.52	11/9/16 23:32
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/9/16 23:32
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 23:32
Methyl-t-butyl ether	U	10.00	U	2.77	11/9/16 23:32
1,1-Dichloroethane	U	10.00	U	2.47	11/9/16 23:32
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/9/16 23:32
Chloroform	U	10.00	U	2.05	11/9/16 23:32
1,2-Dichloroethane	U	10.00	U	2.47	11/9/16 23:32
1,1,1-Trichloroethane	U	10.00	U	1.83	11/9/16 23:32
Carbon Tetrachloride	U	10.00	U	1.59	11/9/16 23:32
Benzene	U	10.00	U	3.13	11/9/16 23:32
Trichloroethene	U	10.00	U	1.86	11/9/16 23:32
1,4-Dioxane	U	10.00	U	2.77	11/9/16 23:32
1,1,2-Trichloroethane	U	10.00	U	1.83	11/9/16 23:32
Toluene	U	10.00	U	2.65	11/9/16 23:32
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/9/16 23:32
Tetrachloroethene	U	10.00	U	1.47	11/9/16 23:32
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 23:32
Chlorobenzene	U	10.00	U	2.17	11/9/16 23:32
Ethylbenzene	U	10.00	U	2.30	11/9/16 23:32
p & m-Xylene	U	10.00	U	2.30	11/9/16 23:32
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/9/16 23:32
o-Xylene	U	10.00	U	2.30	11/9/16 23:32
1,2,3-Trichloropropane	U	10.00	U	1.66	11/9/16 23:32
Isopropylbenzene	U	10.00	U	2.03	11/9/16 23:32
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/9/16 23:32
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/9/16 23:32
1,3-Dichlorobenzene	67.65	10.00	11.25	1.66	11/9/16 23:32
1,4-Dichlorobenzene	U	10.00	U	1.66	11/9/16 23:32
1,2-Dichlorobenzene	U	10.00	U	1.66	11/9/16 23:32
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/9/16 23:32
Naphthalene	U	10.00	U	1.91	11/9/16 23:32
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/9/16 23:32
2-Methylnaphthalene	U	10.00	U	1.72	11/9/16 23:32
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	94	70-130	A16110932		11/9/16 23:32
Toluene-d8	103	70-130	A16110932		11/9/16 23:32
Bromofluorobenzene	107	70-130	A16110932		11/9/16 23:32

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110934
Beacon Sample ID:	G0164568
Client ID/Sampling Location:	SV-08-07
Date Time Collected:	11/3/16 10:41 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	12:20:00 AM
Beacon Job Number:	3588B
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 0:20
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 0:20
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 0:20
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 0:20
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 0:20
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 0:20
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 0:20
Chloroform	U	10.00	U	2.05	11/10/16 0:20
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 0:20
1,1,1-Trichloroethane	10.17	10.00	1.86	1.83	11/10/16 0:20
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 0:20
Benzene	U	10.00	U	3.13	11/10/16 0:20
Trichloroethene	U	10.00	U	1.86	11/10/16 0:20
1,4-Dioxane	U	10.00	U	2.77	11/10/16 0:20
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 0:20
Toluene	106.17	10.00	28.18	2.65	11/10/16 0:20
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 0:20
Tetrachloroethene	U	10.00	U	1.47	11/10/16 0:20
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 0:20
Chlorobenzene	U	10.00	U	2.17	11/10/16 0:20
Ethylbenzene	18.63	10.00	4.29	2.30	11/10/16 0:20
p & m-Xylene	46.51	10.00	10.71	2.30	11/10/16 0:20
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 0:20
o-Xylene	12.78	10.00	2.94	2.30	11/10/16 0:20
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 0:20
Isopropylbenzene	U	10.00	U	2.03	11/10/16 0:20
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 0:20
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 0:20
1,3-Dichlorobenzene	470.72 E	10.00	78.29 E	1.66	11/10/16 0:20
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 0:20
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 0:20
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 0:20
Naphthalene	89.4	10.00	17.06	1.91	11/10/16 0:20
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 0:20
2-Methylnaphthalene	21.28	10.00	3.66	1.72	11/10/16 0:20
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	92	70-130	A16110934		11/10/16 0:20
Toluene-d8	404	70 120	A16110934		11/10/16 0:20
	101	70-130	A10110934		11/10/10 0.20

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File	ID: A16110936
Beacon Sample	ID: H0234589
Client ID/Sampling Location	ion: SV-08-08
Date Time Collect	ted: 11/3/16 11:05 AM
Mat	rix: Soil Gas
Dilution Fac	tor: 1.0
Sample Volume in Lit	ers: 1.00
Date Receiv	ved: 11/8/2016
Analysis Da	ate: 11/10/2016
Analysis Ti	me: 1:07:00 AM
Beacon Job Numb	ber: 3588B
	<b>n</b> 1.

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 1:07
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 1:07
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 1:07
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 1:07
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 1:07
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 1:07
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 1:07
Chloroform	U	10.00	U	2.05	11/10/16 1:07
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 1:07
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 1:07
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 1:07
Benzene	U	10.00	U	3.13	11/10/16 1:07
Trichloroethene	U	10.00	U	1.86	11/10/16 1:07
1,4-Dioxane	U	10.00	U	2.77	11/10/16 1:07
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 1:07
Toluene	94.74	10.00	25.14	2.65	11/10/16 1:07
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 1:07
Tetrachloroethene	U	10.00	U	1.47	11/10/16 1:07
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 1:07
Chlorobenzene	U	10.00	U	2.17	11/10/16 1:07
Ethylbenzene	13.59	10.00	3.13	2.30	11/10/16 1:07
p & m-Xylene	35.28	10.00	8.12	2.30	11/10/16 1:07
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 1:07
o-Xylene	U	10.00	U	2.30	11/10/16 1:07
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 1:07
Isopropylbenzene	U	10.00	U	2.03	11/10/16 1:07
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 1:07
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 1:07
1,3-Dichlorobenzene	794.56 E	10.00	132.15 E	1.66	11/10/16 1:07
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 1:07
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 1:07
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 1:07
Naphthalene	4.22 J	10.00	0.81 J	1.91	11/10/16 1:07
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 1:07
2-Methylnaphthalene	U	10.00	U	1.72	11/10/16 1:07
SUBBOCATES	Demonst D	T 10 14	L.L.F'L ID		Com 1 ( 1
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	93	70-130	A16110936		11/10/16 1:07
Toluene-d8	103	70-130	A16110936		11/10/16 1:07
Bromofluorobenzene	107	70-130	A16110936		11/10/16 1:07

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110938
Beacon Sample ID:	G0164999
Client ID/Sampling Location:	SV-08-01
Date Time Collected:	11/3/16 11:31 AM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	1:53:00 AM
Beacon Job Number:	3588B
	D 1/

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 1:53
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 1:53
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 1:53
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 1:53
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 1:53
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 1:53
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 1:53
Chloroform	U	10.00	U	2.05	11/10/16 1:53
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 1:53
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 1:53
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 1:53
Benzene	U	10.00	U	3.13	11/10/16 1:53
Trichloroethene	U	10.00	U	1.86	11/10/16 1:53
1,4-Dioxane	U	10.00	U	2.77	11/10/16 1:53
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 1:53
Toluene	29.05	10.00	7.71	2.65	11/10/16 1:53
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 1:53
Tetrachloroethene	U	10.00	U	1.47	11/10/16 1:53
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 1:53
Chlorobenzene	U	10.00	U	2.17	11/10/16 1:53
Ethylbenzene	U	10.00	U	2.30	11/10/16 1:53
p & m-Xylene	U	10.00	U	2.30	11/10/16 1:53
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 1:53
o-Xylene	U	10.00	U	2.30	11/10/16 1:53
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 1:53
Isopropylbenzene	U	10.00	U	2.03	11/10/16 1:53
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 1:53
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 1:53
1,3-Dichlorobenzene	130.6	10.00	21.72	1.66	11/10/16 1:53
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 1:53
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 1:53
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 1:53
Naphthalene	U	10.00	U	1.91	11/10/16 1:53
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 1:53
2-Methylnaphthalene	U	10.00	U	1.72	11/10/16 1:53
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	95	70-130	A16110938		11/10/16 1:53
Toluene-d8	102	70-130	A16110938		11/10/16 1:53
Bromofluorobenzene	103	70-130	A16110938		11/10/16 1:53

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110940
Beacon Sample ID:	1100817
Client ID/Sampling Location:	SV-05-01
Date Time Collected:	11/3/16 1:22 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	2:40:00 AM
Beacon Job Number:	3588B
	<b>D</b> 1

Deacon Job Number.	3388D				
	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 2:40
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 2:40
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 2:40
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 2:40
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 2:40
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 2:40
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 2:40
Chloroform	U	10.00	U	2.05	11/10/16 2:40
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 2:40
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 2:40
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 2:40
Benzene	U	10.00	U	3.13	11/10/16 2:40
Trichloroethene	U	10.00	U	1.86	11/10/16 2:40
1,4-Dioxane	U	10.00	U	2.77	11/10/16 2:40
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 2:40
Toluene	36.46	10.00	9.68	2.65	11/10/16 2:40
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 2:40
Tetrachloroethene	U	10.00	U	1.47	11/10/16 2:40
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 2:40
Chlorobenzene	U	10.00	U	2.17	11/10/16 2:40
Ethylbenzene	U	10.00	U	2.30	11/10/16 2:40
p & m-Xylene	25.08	10.00	5.78	2.30	11/10/16 2:40
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 2:40
o-Xylene	U	10.00	U	2.30	11/10/16 2:40
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 2:40
Isopropylbenzene	U	10.00	U	2.03	11/10/16 2:40
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 2:40
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 2:40
1,3-Dichlorobenzene	312.02 E	10.00	51.89 E	1.66	11/10/16 2:40
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 2:40
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 2:40
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 2:40
Naphthalene	6.07 J	10.00	1.16 J	1.91	11/10/16 2:40
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 2:40
2-Methylnaphthalene	U	10.00	U	1.72	11/10/16 2:40
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	94	70-130	A16110940		11/10/16 2:40
Toluene-d8	102	70-130	A16110940		11/10/16 2:40
Bromofluorobenzene	108	70-130	A16110940		11/10/16 2:40
	200	.0 100			11, 10, 10 2.10

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110942
Beacon Sample ID:	1049459
Client ID/Sampling Location:	SV-05-02
Date Time Collected:	11/3/16 1:42 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	3:26:00 AM
Beacon Job Number:	3588B

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 3:26
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 3:26
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 3:26
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 3:26
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 3:26
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 3:26
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 3:26
Chloroform	U	10.00	U	2.05	11/10/16 3:26
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 3:26
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 3:26
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 3:26
Benzene	U	10.00	U	3.13	11/10/16 3:26
Trichloroethene	U	10.00	U	1.86	11/10/16 3:26
1,4-Dioxane	U	10.00	U	2.77	11/10/16 3:26
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 3:26
Toluene	54.1	10.00	14.36	2.65	11/10/16 3:26
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 3:26
Tetrachloroethene	U	10.00	U	1.47	11/10/16 3:26
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 3:26
Chlorobenzene	U	10.00	U	2.17	11/10/16 3:26
Ethylbenzene	13.54	10.00	3.12	2.30	11/10/16 3:26
p & m-Xylene	34.33	10.00	7.91	2.30	11/10/16 3:26
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 3:26
o-Xylene	11.79	10.00	2.72	2.30	11/10/16 3:26
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 3:26
Isopropylbenzene	U	10.00	U	2.03	11/10/16 3:26
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 3:26
1,2,4-Trimethylbenzene	10.82	10.00	2.2	2.03	11/10/16 3:26
1,3-Dichlorobenzene	338.87 E	10.00	56.36 E	1.66	11/10/16 3:26
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 3:26
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 3:26
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 3:26
Naphthalene	3.63 J	10.00	0.69 J	1.91	11/10/16 3:26
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 3:26
2-Methylnaphthalene	U	10.00	U	1.72	11/10/16 3:26
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	93	70-130	A16110942		11/10/16 3:26
Toluene-d8	102	70-130	A16110942		11/10/16 3:26
Bromofluorobenzene	109	70-130	A16110942		11/10/16 3:26

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110944
Beacon Sample ID:	1049520
Client ID/Sampling Location:	SV-05-03
Date Time Collected:	11/3/16 2:10 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	4:12:00 AM
Beacon Job Number:	3588B

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 4:12
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 4:12
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 4:12
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 4:12
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 4:12
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 4:12
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 4:12
Chloroform	U	10.00	U	2.05	11/10/16 4:12
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 4:12
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 4:12
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 4:12
Benzene	U	10.00	U	3.13	11/10/16 4:12
Trichloroethene	U	10.00	U	1.86	11/10/16 4:12
1,4-Dioxane	U	10.00	U	2.77	11/10/16 4:12
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 4:12
Toluene	38.06	10.00	10.1	2.65	11/10/16 4:12
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 4:12
Tetrachloroethene	U	10.00	U	1.47	11/10/16 4:12
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 4:12
Chlorobenzene	U	10.00	U	2.17	11/10/16 4:12
Ethylbenzene	10.15	10.00	2.34	2.30	11/10/16 4:12
p & m-Xylene	25.24	10.00	5.81	2.30	11/10/16 4:12
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 4:12
o-Xylene	U	10.00	U	2.30	11/10/16 4:12
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 4:12
Isopropylbenzene	U	10.00	U	2.03	11/10/16 4:12
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 4:12
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 4:12
1,3-Dichlorobenzene	481.16 E	10.00	80.02 E	1.66	11/10/16 4:12
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 4:12
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 4:12
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 4:12
Naphthalene	18.82	10.00	3.59	1.91	11/10/16 4:12
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 4:12
2-Methylnaphthalene	14.12	10.00	2.43	1.72	11/10/16 4:12
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	92	70-130	A16110944		11/10/16 4:12
Toluene-d8	101	70-130	A16110944		11/10/16 4:12
Bromofluorobenzene	108	70-130	A16110944		11/10/16 4:12

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110946
Beacon Sample ID:	G0177980
Client ID/Sampling Location:	SV-05-05
Date Time Collected:	11/3/16 2:42 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	4:59:00 AM
Beacon Job Number:	3588B

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	U	10.00	U	3.91	11/10/16 4:59
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 4:59
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 4:59
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 4:59
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 4:59
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 4:59
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 4:59
Chloroform	U	10.00	U	2.05	11/10/16 4:59
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 4:59
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 4:59
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 4:59
Benzene	U	10.00	U	3.13	11/10/16 4:59
Trichloroethene	U	10.00	U	1.86	11/10/16 4:59
1,4-Dioxane	U	10.00	U	2.77	11/10/16 4:59
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 4:59
Toluene	31.06	10.00	8.24	2.65	11/10/16 4:59
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 4:59
Tetrachloroethene	U	10.00	U	1.47	11/10/16 4:59
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 4:59
Chlorobenzene	U	10.00	U	2.17	11/10/16 4:59
Ethylbenzene	U	10.00	U	2.30	11/10/16 4:59
p & m-Xylene	19.08	10.00	4.39	2.30	11/10/16 4:59
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 4:59
o-Xylene	U	10.00	U	2.30	11/10/16 4:59
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 4:59
Isopropylbenzene	U	10.00	U	2.03	11/10/16 4:59
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 4:59
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 4:59
1,3-Dichlorobenzene	439.9 E	10.00	73.16 E	1.66	11/10/16 4:59
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 4:59
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 4:59
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 4:59
Naphthalene	3.08 J	10.00	0.59 J	1.91	11/10/16 4:59
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 4:59
2-Methylnaphthalene	U	10.00	U	1.72	11/10/16 4:59
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	91	70-130	A16110946		11/10/16 4:59
Toluene-d8	102	70-130	A16110946		11/10/16 4:59
Bromofluorobenzene	108	70-130	A16110946		11/10/16 4:59

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110948
Beacon Sample ID:	H0231898
Client ID/Sampling Location:	SV-05-04
Date Time Collected:	11/3/16 2:28 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	5:45:00 AM
Beacon Job Number:	3588B
	<b>D</b> 1

	Results	LOQ	Results	LOQ	
COMPOUNDS	ug/m3	ug/m3	ppbv	ppbv	Completed
Vinyl Chloride	Ŭ	10.00	U	3.91	11/10/16 5:45
1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 5:45
1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 5:45
trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 5:45
Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 5:45
1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 5:45
cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 5:45
Chloroform	U	10.00	U	2.05	11/10/16 5:45
1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 5:45
1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 5:45
Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 5:45
Benzene	U	10.00	U	3.13	11/10/16 5:45
Trichloroethene	U	10.00	U	1.86	11/10/16 5:45
1,4-Dioxane	U	10.00	U	2.77	11/10/16 5:45
1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 5:45
Toluene	41.01	10.00	10.88	2.65	11/10/16 5:45
1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 5:45
Tetrachloroethene	U	10.00	U	1.47	11/10/16 5:45
1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 5:45
Chlorobenzene	U	10.00	U	2.17	11/10/16 5:45
Ethylbenzene	10.35	10.00	2.38	2.30	11/10/16 5:45
p & m-Xylene	25.17	10.00	5.8	2.30	11/10/16 5:45
1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 5:45
o-Xylene	U	10.00	U	2.30	11/10/16 5:45
1,2,3-Trichloropropane	U	10.00	U	1.66	11/10/16 5:45
Isopropylbenzene	U	10.00	U	2.03	11/10/16 5:45
1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 5:45
1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 5:45
1,3-Dichlorobenzene	396.72 E	10.00	65.98 E	1.66	11/10/16 5:45
1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 5:45
1,2-Dichlorobenzene	U	10.00	U	1.66	11/10/16 5:45
1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 5:45
Naphthalene	80.59	10.00	15.37	1.91	11/10/16 5:45
1,2,3-Trichlorobenzene	U	10.00	U	1.35	11/10/16 5:45
2-Methylnaphthalene	27.52	10.00	4.73	1.72	11/10/16 5:45
SUBDOCATES	Danaant Daaar	Limite	Lab Eila ID		Comulato
SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
1,2-DCA-d4	92	70-130	A16110948		11/10/16 5:45
Toluene-d8	102	70-130	A16110948		11/10/16 5:45
Bromofluorobenzene	107	70-130	A16110948		11/10/16 5:45

### Beacon Environmental Services, Inc. 2203A Commerce Road Suite 1 Forest Hill, MD 21050 USA Analysis by EPA Method TO-17

<u>Client:</u> Vista GeoScience 130 Capital Drive, Suite C Golden, CO

Lab File ID:	A16110950
Beacon Sample ID:	1101163
Client ID/Sampling Location:	SV-05-06
Date Time Collected:	11/3/16 3:06 PM
Matrix:	Soil Gas
Dilution Factor:	1.0
Sample Volume in Liters:	1.00
Date Received:	11/8/2016
Analysis Date:	11/10/2016
Analysis Time:	6:32:00 AM
Beacon Job Number:	3588B

$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Results	LOQ	Results	LOQ	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	COMPOUNDS	ug/m3	ug/m3	ppbv		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Vinyl Chloride	-	10.00	U	3.91	11/10/16 6:32
trans-1,2-DichloroetheneU10.00U2.5211/10/16 6:32Methyl-t-butyl etherU10.00U2.7711/10/16 6:321,1-DichloroethaneU10.00U2.4711/10/16 6:32ChloroformU10.00U2.5211/10/16 6:321,2-DichloroethaneU10.00U2.4711/10/16 6:321,1-TrichloroethaneU10.00U2.4711/10/16 6:32Carbon TetrachlorideU10.00U1.8311/10/16 6:32BenzeneU10.00U1.8311/10/16 6:32TrichloroethaneU10.00U1.8611/10/16 6:321,2-TrichloroethaneU10.00U1.8611/10/16 6:321,2-TrichloroethaneU10.00U1.8311/10/16 6:321,1,2-TrichloroethaneU10.00U1.8311/10/16 6:321,1,2-TrichloroethaneU10.00U1.4611/10/16 6:321,1,1,2-TrichloroethaneU10.00U1.4711/10/16 6:321,1,2-TrichloroethaneU10.00U1.4611/10/16 6:321,1,2-TrichloroethaneU10.00U1.4611/10/16 6:321,1,2-TrichloroethaneU10.00U1.4611/10/16 6:321,1,2-TrichloroethaneU10.00U1.4611/10/16 6:321,2,3-TrichloropthaneU10.00U2.3011/10/16 6:321,2,3-Trichloropt	1,1-Dichloroethene	U	10.00	U	2.52	11/10/16 6:32
Methyl-t-butyl ether         U         10.00         U         2.77         11/10/16 6:32           1,1-Dichloroethane         U         10.00         U         2.47         11/10/16 6:32           cis-1,2-Dichloroethane         U         10.00         U         2.05         11/10/16 6:32           1,2-Dichloroethane         U         10.00         U         2.05         11/10/16 6:32           1,1-Trichloroethane         U         10.00         U         1.83         11/10/16 6:32           Carbon Tetrachloride         U         10.00         U         1.59         11/10/16 6:32           J.4-Dioxane         U         10.00         U         2.77         11/10/16 6:32           I,1,2-Trichloroethane         U         10.00         U         2.77         11/10/16 6:32           I,2-Dibromoethane (EDB)         U         10.00         U         1.83         11/10/16 6:32           I,2-Dibromoethane (EDB)         U         10.00         U         1.47         11/10/16 6:32           I,1,2-Trichloroethane         U         10.00         U         1.47         11/10/16 6:32           I,2-Dibromoethane (EDB)         U         10.00         U         2.47         11/10/16 6:32	1,1,2-Trichlorotrifluoroethane (Fr.113)	U	10.00	U	1.30	11/10/16 6:32
I,1-DichloroethaneU10.00U2.4711/10/16 6:32cis-1,2-DichloroethaneU10.00U2.5211/10/16 6:32(L,2-DichloroethaneU10.00U2.4711/10/16 6:32I,1,1-TrichloroethaneU10.00U2.4711/10/16 6:32Carbon TetrachlorideU10.00U1.5911/10/16 6:32BenzeneU10.00U3.1311/10/16 6:32TrichloroethaneU10.00U1.8611/10/16 6:32J,1,2-TrichloroethaneU10.00U1.8311/10/16 6:32I,1,2-TrichloroethaneU10.00U1.8311/10/16 6:32I,1,2-TrichloroethaneU10.00U1.8311/10/16 6:32I,2-Dibromoethane (EDB)U10.00U1.3011/10/16 6:32I,1,2-TetrachloroethaneU10.00U1.4711/10/16 6:32ChlorobenzeneU10.00U1.4711/10/16 6:32L,1,2-TetrachloroethaneU10.00U2.1711/10/16 6:32L,1,2-TetrachloroethaneU10.00U2.3011/10/16 6:32L,2,2-TetrachloroethaneU10.00U2.3011/10/16 6:32L,2,2-TetrachloroethaneU10.00U2.3011/10/16 6:32L,2,2-TetrachloroethaneU10.00U2.3011/10/16 6:32L,2,2-TetrachloroethaneU10.00U2.3011/10/16 6:32 <t< td=""><td>trans-1,2-Dichloroethene</td><td>U</td><td>10.00</td><td>U</td><td>2.52</td><td>11/10/16 6:32</td></t<>	trans-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 6:32
cis-1,2-DichloroetheneU10.00U2.5211/10/16 6:32ChloroformU10.00U2.0511/10/16 6:321,2-DichloroethaneU10.00U2.4711/10/16 6:32Carbon TetrachlorideU10.00U1.8311/10/16 6:32Carbon TetrachlorideU10.00U1.8311/10/16 6:32BenzeneU10.00U1.8611/10/16 6:32I,1.2-TrichloroetheneU10.00U1.8611/10/16 6:321,2-Diromoethane (EDB)U10.00U1.8311/10/16 6:32Toluene <b>34.42</b> 10.00U1.3011/10/16 6:321,2-Diromoethane (EDB)U10.00U1.3011/10/16 6:32ChloroetheneU10.00U1.3011/10/16 6:321,1,2-TetrachloroethaneU10.00U1.4611/10/16 6:321,1,2-TetrachloroethaneU10.00U1.4611/10/16 6:321,1,2-TetrachloroethaneU10.00U2.542.3011/10/16 6:321,1,2-TetrachloroethaneU10.00U2.3011/10/16 6:321,2,3-TrichloroethaneU10.00U2.311,2,2-TetrachloroethaneU10.00U2.3011/10/16 6:321,2,3-TrichloropropaneU10.00U2.3011/10/16 6:321,2,2-TetrachloroethaneU10.00U2.0311/10/16 6:321,2,3-TrinehryblenzeneU10.	Methyl-t-butyl ether	U	10.00	U	2.77	11/10/16 6:32
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1,1-Dichloroethane	U	10.00	U	2.47	11/10/16 6:32
1,2-Dichloroethane       U       10.00       U       2.47       11/10/16 6:32         1,1,1-Trichloroethane       U       10.00       U       1.83       11/10/16 6:32         Carbon Tetrachloride       U       10.00       U       1.59       11/10/16 6:32         Benzene       U       10.00       U       3.13       11/10/16 6:32         Trichloroethene       U       10.00       U       3.13       11/10/16 6:32         1,4-Dioxane       U       10.00       U       2.77       11/10/16 6:32         1,1,2-Trichloroethane       U       10.00       U       1.83       11/10/16 6:32         1,2-Dibromoethane (EDB)       U       10.00       U       1.30       11/10/16 6:32         1,2-Dibromoethane       U       10.00       U       1.30       11/10/16 6:32         1,2-Dibromoethane       U       10.00       U       1.46       11/10/16 6:32         1,1,2-Tetrachloroethane       U       10.00       U       1.47       11/10/16 6:32         1,1,2-Zietrachloroethane       U       10.00       U       2.17       11/10/16 6:32         1,1,2-Zietrachloroethane       U       10.00       U       2.30       11/10/16 6:32 </td <td>cis-1,2-Dichloroethene</td> <td>U</td> <td>10.00</td> <td>U</td> <td>2.52</td> <td>11/10/16 6:32</td>	cis-1,2-Dichloroethene	U	10.00	U	2.52	11/10/16 6:32
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Chloroform	U	10.00	U	2.05	11/10/16 6:32
Carbon Tetrachloride         U         10.00         U         1.59         11/10/16 6:32           Benzene         U         10.00         U         3.13         11/10/16 6:32           Trichloroethene         U         10.00         U         1.86         11/10/16 6:32           1,1,2-Trichloroethane         U         10.00         U         2.77         11/10/16 6:32           Toluene         34.42         10.00         U         1.83         11/10/16 6:32           1,2-Trichloroethane         U         10.00         U         1.30         11/10/16 6:32           1,1,1-Z-Ttertachloroethane         U         10.00         U         1.47         11/10/16 6:32           Chlorobenzene         U         10.00         U         1.47         11/10/16 6:32           Ethylbenzene         11.04         10.00         U         2.17         11/10/16 6:32           1,1,2-Z-Tetrachloroethane         U         10.00         U         2.30         11/10/16 6:32           1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/10/16 6:32           1,2,2-Tetrachloroethane         U         10.00         U         2.03         11/10/16 6:32	1,2-Dichloroethane	U	10.00	U	2.47	11/10/16 6:32
Benzene         U         10.00         U         3.13         11/10/16 6:32           Trichloroethene         U         10.00         U         1.86         11/10/16 6:32           1,4-Dioxane         U         10.00         U         2.77         11/10/16 6:32           1,1,2-Trichloroethane         U         10.00         U         1.83         11/10/16 6:32           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/10/16 6:32           1,1,1,2-Tetrachloroethane         U         10.00         U         1.47         11/10/16 6:32           1,1,1,2-Tetrachloroethane         U         10.00         U         1.46         11/10/16 6:32           Chlorobenzene         U         10.00         U         2.17         11/10/16 6:32           Ethylbenzene         11.04         10.00         2.54         2.30         11/10/16 6:32           1,2,3-Trichloroothane         U         10.00         U         1.46         11/10/16 6:32           1,2,3-Trichlorooppane         U         10.00         U         2.30         11/10/16 6:32           1,2,3-Trichlorooppane         U         10.00         U         2.03         11/10/16 6:32	1,1,1-Trichloroethane	U	10.00	U	1.83	11/10/16 6:32
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Carbon Tetrachloride	U	10.00	U	1.59	11/10/16 6:32
1,4-DioxaneU10.00U2.7711/10/16 6:321,1,2-TrichloroethaneU10.00U1.8311/10/16 6:32Toluene <b>34.42</b> 10.00 <b>9.13</b> 2.6511/10/16 6:321,2-Dibromoethane (EDB)U10.00U1.3011/10/16 6:32TetrachloroetheneU10.00U1.4711/10/16 6:32ChlorobenzeneU10.00U1.4611/10/16 6:32EthylbenzeneU10.00U2.1711/10/16 6:32Ethylbenzene <b>11.04</b> 10.00 <b>2.54</b> 2.3011/10/16 6:32p & m-Xylene <b>27.78</b> 10.00 <b>6.4</b> 2.3011/10/16 6:321,2,2-TetrachloroethaneU10.00U1.4611/10/16 6:32o-XyleneU10.00U2.3011/10/16 6:321,2,3-TrichloroptapaeU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U1.6611/10/16 6:321,2,2-TrichlorobenzeneU10.00U1.6611/10/16 6:321,2,4-TrimethylbenzeneU10.00U1.6611/10/16 6:321,2,4-TrichlorobenzeneU10.00U1.6611/10/16 6:321,2,4-TrichlorobenzeneU10.00U1.6611/10/16 6:321,2,4-Tric	Benzene	U	10.00	U	3.13	11/10/16 6:32
1,1,2-TrichloroethaneU10.00U1.8311/10/16 6:32Toluene34.4210.009.132.6511/10/16 6:321,2-Dibromoethane (EDB)U10.00U1.3011/10/16 6:32TetrachloroethaneU10.00U1.4711/10/16 6:321,1,2-TetrachloroethaneU10.00U1.4611/10/16 6:32ChlorobenzeneU10.00U2.1711/10/16 6:32Ethylbenzene11.0410.002.542.3011/10/16 6:32p & m-Xylene27.7810.006.42.3011/10/16 6:321,2,2-TetrachloroethaneU10.00U1.4611/10/16 6:32p & m-XyleneU10.00U1.4611/10/16 6:321,2,3-TichloropopaneU10.00U2.3011/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,2+2-TichlorobenzeneU10.00U1.3611/10/16 6:321,2-2-TichlorobenzeneU10.00U2.0311/10/16 6:321,2-2-TichlorobenzeneU10.00U2.0311/10/16 6:321,2-2-TichlorobenzeneU10.00U1.3511/10/16 6:321,2-2-TichlorobenzeneU10.00U1.3511/10/16 6:321,	Trichloroethene	U	10.00	U	1.86	11/10/16 6:32
Toluene         34.42         10.00         9.13         2.65         11/10/16 6.32           1,2-Dibromoethane (EDB)         U         10.00         U         1.30         11/10/16 6.32           Tetrachloroethene         U         10.00         U         1.47         11/10/16 6.32           1,1,2-Tetrachloroethane         U         10.00         U         1.46         11/10/16 6.32           Chlorobenzene         U         10.00         U         2.17         11/10/16 6.32           Ethylbenzene         11.04         10.00         2.54         2.30         11/10/16 6.32           p & m-Xylene         27.78         10.00         6.4         2.30         11/10/16 6.32           o-Xylene         U         10.00         U         1.46         11/10/16 6.32           o-Xylene         U         10.00         U         2.30         11/10/16 6.32           1,2,2-Tetrachloroethane         U         10.00         U         2.30         11/10/16 6.32           1,2,3-Trichloroppane         U         10.00         U         2.03         11/10/16 6.32           1,3-5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6.32           1,3	1,4-Dioxane	U	10.00	U	2.77	11/10/16 6:32
1,2-Dibromoethane (EDB)       U       10.00       U       1.30       11/10/16 6.32         Tetrachloroethene       U       10.00       U       1.47       11/10/16 6.32         1,1,1,2-Tetrachloroethane       U       10.00       U       1.46       11/10/16 6.32         Chlorobenzene       U       10.00       U       2.17       11/10/16 6.32         Ethylbenzene       11.04       10.00       2.54       2.30       11/10/16 6.32         p & m-Xylene       27.78       10.00       6.4       2.30       11/10/16 6.32         1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/10/16 6.32         o-Xylene       U       10.00       U       2.30       11/10/16 6.32         1,2,3-Trichloroptopane       U       10.00       U       2.30       11/10/16 6.32         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6.32         1,3-Dichlorobenzene       U       10.00       U       2.03       11/10/16 6.32         1,4-Dichlorobenzene       U       10.00       U       2.03       11/10/16 6.32         1,2-4-Trimethylbenzene       U       10.00       U       1.66       11/1	1,1,2-Trichloroethane	U	10.00	U	1.83	11/10/16 6:32
TetrachloroetheneU10.00U1.4711/10/16 6:321,1,2TetrachloroethaneU10.00U1.4611/10/16 6:32ChlorobenzeneU10.00U2.1711/10/16 6:32Ethylbenzene11.0410.002.542.3011/10/16 6:32p & m-Xylene27.7810.006.42.3011/10/16 6:321,1,2,2-TetrachloroethaneU10.00U1.4611/10/16 6:32o-XyleneU10.00U2.3011/10/16 6:321,2,3-TrichloropropaneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3-DichlorobenzeneU10.00U2.0311/10/16 6:321,2,4-TrimethylbenzeneU10.00U1.6611/10/16 6:321,2-DichlorobenzeneU10.00U1.6611/10/16 6:321,2-DichlorobenzeneU10.00U1.3511/10/16 6:321,2,4-TrichlorobenzeneU10.00U1.3511/10/16 6:321,2,3-TrichlorobenzeneU10.00U1.3511/10/16 6:321,2,4-TrichlorobenzeneU10.00U1.3511/10/16 6:321,2,3-TrichlorobenzeneU10.00U1.3511/10/16 6:322,3-TrichlorobenzeneU10.00U1.3511/10/16 6:32 <td< td=""><td>Toluene</td><td>34.42</td><td>10.00</td><td>9.13</td><td>2.65</td><td>11/10/16 6:32</td></td<>	Toluene	34.42	10.00	9.13	2.65	11/10/16 6:32
TetrachloroetheneU10.00U1.4711/10/16 6:321,1,2TetrachloroethaneU10.00U1.4611/10/16 6:32ChlorobenzeneU10.00U2.1711/10/16 6:32Ethylbenzene11.0410.002.542.3011/10/16 6:32p & m-Xylene27.7810.006.42.3011/10/16 6:321,1,2,2-TetrachloroethaneU10.00U1.4611/10/16 6:32o-XyleneU10.00U2.3011/10/16 6:321,2,3-TrichloropropaneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3,5-TrimethylbenzeneU10.00U2.0311/10/16 6:321,3-DichlorobenzeneU10.00U2.0311/10/16 6:321,2,4-TrimethylbenzeneU10.00U1.6611/10/16 6:321,2-DichlorobenzeneU10.00U1.6611/10/16 6:321,2-DichlorobenzeneU10.00U1.3511/10/16 6:321,2,4-TrichlorobenzeneU10.00U1.3511/10/16 6:321,2,3-TrichlorobenzeneU10.00U1.3511/10/16 6:321,2,4-TrichlorobenzeneU10.00U1.3511/10/16 6:321,2,3-TrichlorobenzeneU10.00U1.3511/10/16 6:322,3-TrichlorobenzeneU10.00U1.3511/10/16 6:32 <td< td=""><td>1,2-Dibromoethane (EDB)</td><td>U</td><td>10.00</td><td>U</td><td>1.30</td><td>11/10/16 6:32</td></td<>	1,2-Dibromoethane (EDB)	U	10.00	U	1.30	11/10/16 6:32
Chlorobenzene         U         10.00         U         2.17         11/10/16 6:32           Ethylbenzene         11.04         10.00         2.54         2.30         11/10/16 6:32           p & m-Xylene         27.78         10.00         6.4         2.30         11/10/16 6:32           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/10/16 6:32           o-Xylene         U         10.00         U         2.30         11/10/16 6:32           1,2,3-Trichloropropane         U         10.00         U         2.30         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3-Dichlorobenzene         397.51 E         10.00         U         2.03         11/10/16 6:32           1,2-Dichlorobenzene         U         10.00         U         1.66         11/10/16 6:32           1,2-4-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32		U	10.00	U	1.47	11/10/16 6:32
Chlorobenzene         U         10.00         U         2.17         11/10/16 6:32           Ethylbenzene         11.04         10.00         2.54         2.30         11/10/16 6:32           p & m-Xylene         27.78         10.00         6.4         2.30         11/10/16 6:32           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/10/16 6:32           o-Xylene         U         10.00         U         2.30         11/10/16 6:32           1,2,3-Trichloropropane         U         10.00         U         2.30         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3-Dichlorobenzene         397.51 E         10.00         U         2.03         11/10/16 6:32           1,2-Dichlorobenzene         U         10.00         U         1.66         11/10/16 6:32           1,2-4-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32	1,1,1,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 6:32
p & m-Xylene         27.78         10.00         6.4         2.30         11/10/16 6:32           1,1,2,2-Tetrachloroethane         U         10.00         U         1.46         11/10/16 6:32           o-Xylene         U         10.00         U         2.30         11/10/16 6:32           1,2,3-Trichloropropane         U         10.00         U         2.30         11/10/16 6:32           1sopropylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3-Dichlorobenzene         U         10.00         U         2.03         11/10/16 6:32           1,4-Dichlorobenzene         U         10.00         U         1.66         11/10/16 6:32           1,2-4-Trichlorobenzene         U         10.00         U         1.66         11/10/16 6:32           1,2,4-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32     <		U	10.00	U	2.17	11/10/16 6:32
1,1,2,2-Tetrachloroethane       U       10.00       U       1.46       11/10/16 6:32         o-Xylene       U       10.00       U       2.30       11/10/16 6:32         1,2,3-Trichloropropane       U       10.00       U       1.66       11/10/16 6:32         Isopropylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3-Dichlorobenzene       397.51 E       10.00       66.11 E       1.66       11/10/16 6:32         1,4-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U	Ethylbenzene	11.04	10.00	2.54	2.30	11/10/16 6:32
o-Xylene         U         10.00         U         2.30         11/10/16 6:32           1,2,3-Trichloropropane         U         10.00         U         1.66         11/10/16 6:32           Isopropylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3,5-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,2,4-Trimethylbenzene         U         10.00         U         2.03         11/10/16 6:32           1,3-Dichlorobenzene         U         10.00         U         2.03         11/10/16 6:32           1,4-Dichlorobenzene         U         10.00         G6.11 E         1.66         11/10/16 6:32           1,2-Dichlorobenzene         U         10.00         U         1.66         11/10/16 6:32           1,2,4-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32           2-Methylnaphthalene         U         10.00         U         1.35         11/10/16 6:32	p & m-Xylene	27.78	10.00	6.4	2.30	11/10/16 6:32
1,2,3-Trichloropropane       U       10.00       U       1.66       11/10/16 6:32         Isopropylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3-Dichlorobenzene <b>397.51 E</b> 10.00 <b>66.11 E</b> 1.66       11/10/16 6:32         1,4-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U	1,1,2,2-Tetrachloroethane	U	10.00	U	1.46	11/10/16 6:32
1,2,3-Trichloropropane       U       10.00       U       1.66       11/10/16 6:32         Isopropylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3-Dichlorobenzene       J       10.00       U       2.03       11/10/16 6:32         1,4-Dichlorobenzene       U       10.00       G6.11 E       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.72       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72<		U	10.00	U	2.30	11/10/16 6:32
1,3,5-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3-Dichlorobenzene <b>397.51 E</b> 10.00 <b>66.11 E</b> 1.66       11/10/16 6:32         1,4-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U		U	10.00	U	1.66	11/10/16 6:32
1,2,4-Trimethylbenzene       U       10.00       U       2.03       11/10/16 6:32         1,3-Dichlorobenzene <b>397.51 E</b> 10.00 <b>66.11 E</b> 1.66       11/10/16 6:32         1,4-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110950       11/10/16 6:32         Toluene-d8       102       70-130       A16110950       11/10/16 6:32     <	Isopropylbenzene	U	10.00	U	2.03	11/10/16 6:32
1,3-Dichlorobenzene       397.51 E       10.00       66.11 E       1.66       11/10/16 6:32         1,4-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110950       11/10/16 6:32         Toluene-d8       102       70-130       A16110950       11/10/16 6:32	1,3,5-Trimethylbenzene	U	10.00	U	2.03	11/10/16 6:32
1,4-Dichlorobenzene       U       10.00       U       1.66       11/10/16       6:32         1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16       6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16       6:32         Naphthalene <b>3.63 J</b> 10.00 <b>0.69 J</b> 1.91       11/10/16       6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16       6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16       6:32         SURROGATES       Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110950       11/10/16       6:32         Toluene-d8       102       70-130       A16110950       11/10/16       6:32	1,2,4-Trimethylbenzene	U	10.00	U	2.03	11/10/16 6:32
1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         Naphthalene <b>3.63 J</b> 10.00 <b>0.69 J</b> 1.91       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         SURROGATES         Percent Recovery Limits       Lab File ID       Completed         1,2-DCA-d4 <b>93</b> 70-130       A16110950       11/10/16 6:32         Toluene-d8 <b>102</b> 70-130       A16110950       11/10/16 6:32	1,3-Dichlorobenzene	397.51 E	10.00	66.11 E	1.66	11/10/16 6:32
1,2-Dichlorobenzene       U       10.00       U       1.66       11/10/16 6:32         1,2,4-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         Naphthalene <b>3.63 J</b> 10.00 <b>0.69 J</b> 1.91       11/10/16 6:32         1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         SURROGATES         Percent Recovery Limits       Lab File ID       Completed         1,2-DCA-d4 <b>93</b> 70-130       A16110950       11/10/16 6:32         Toluene-d8 <b>102</b> 70-130       A16110950       11/10/16 6:32	1,4-Dichlorobenzene	U	10.00	U	1.66	11/10/16 6:32
Naphthalene         3.63 J         10.00         0.69 J         1.91         11/10/16 6:32           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32           2-Methylnaphthalene         U         10.00         U         1.72         11/10/16 6:32           SURROGATES           Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110950         11/10/16 6:32           Toluene-d8         102         70-130         A16110950         11/10/16 6:32		U	10.00	U	1.66	11/10/16 6:32
Naphthalene         3.63 J         10.00         0.69 J         1.91         11/10/16 6:32           1,2,3-Trichlorobenzene         U         10.00         U         1.35         11/10/16 6:32           2-Methylnaphthalene         U         10.00         U         1.72         11/10/16 6:32           SURROGATES           Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110950         11/10/16 6:32           Toluene-d8         102         70-130         A16110950         11/10/16 6:32	1,2,4-Trichlorobenzene	U	10.00	U	1.35	11/10/16 6:32
1,2,3-Trichlorobenzene       U       10.00       U       1.35       11/10/16 6:32         2-Methylnaphthalene       U       10.00       U       1.72       11/10/16 6:32         SURROGATES         Percent Recovery       Limits       Lab File ID       Completed         1,2-DCA-d4       93       70-130       A16110950       11/10/16 6:32         Toluene-d8       102       70-130       A16110950       11/10/16 6:32		3.63 J	10.00	0.69 J	1.91	
2-Methylnaphthalene         U         10.00         U         1.72         11/10/16 6:32           SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110950         11/10/16 6:32           Toluene-d8         102         70-130         A16110950         11/10/16 6:32		U		U		11/10/16 6:32
SURROGATES         Percent Recovery         Limits         Lab File ID         Completed           1,2-DCA-d4         93         70-130         A16110950         11/10/16 6:32           Toluene-d8         102         70-130         A16110950         11/10/16 6:32		U	10.00	U	1.72	11/10/16 6:32
1,2-DCA-d49370-130A1611095011/10/16 6:32Toluene-d810270-130A1611095011/10/16 6:32	· ·					
1,2-DCA-d49370-130A1611095011/10/16 6:32Toluene-d810270-130A1611095011/10/16 6:32	SURROGATES	Percent Recovery	Limits	Lab File ID		Completed
Toluene-d8 102 70-130 A16110950 11/10/16 6:32						
	Toluene-d8	102		A16110950		11/10/16 6:32
	Bromofluorobenzene	108	70-130	A16110950		11/10/16 6:32

Attachment 1

Chain of Custody

Beacon Environmental Services, Inc.

# CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050

Client Contact Information		Project Man	nagericyod	0	Price			BEACON	<b>BEACON Project No.: 3588</b>	o.: 3588			
Company: Lots Ca		Phone: (SV	12) 492	- 20	6			Client PO No.	No.			Analysis	Matrix
Address: loco uptown Blud	d. NE	Project Name:	ne: COA		Jard			Analysis	Analysis Turnaround Time	nd Time			
City/State/Zip: Al bugueraue, N M	OIL LS W	Location: V	100 2 nd	54.5	all mi	Albusueraue	w2	Normal	mal				iA tr
Phone: (505) 346 - 1600		Sampler Name(s):	me(s): 7. 6	AUDE	 )	LAWSEN	-	C Rus	Rush (Specify)	): days			nəidr
		Start	Start Time		Stop	Stop Time		Pre-survey	Pre-survey Measured	Post-survey			mAli
Location ID Tube ID Number	Pump ID Number	Date	Time	Temp. (F)	Date	Time	Temp. (F)	Pump F (mL	Pump Flow Rate (mL/min)	Measured Pump Flow Rate (mL/min)		8260F	Soll C
SVA B HOZSZUES	Ro4-P101-44	2	11:25		\$7]a	11:53		200 ml	mallow	200 m Min		×	
H220H			11:28			11:33		100 m	n L/mm	1			
SV-07#55 H0231 8104	~	-	3:58			04:51		200 m	1	1			
8/ 01 14 HO 199 678		-	32:28			13:40		200 m	1 mm	200ml/			
SV-084 1049236	1	-	15:37			21:51		Z00 M	1 min	200 ml			
5V-085 1161336		_	15:57			15:42		200 m	LIMIN	- 1			
SW-09A CO17458			11:18			17:23		ZOO ML	1/m.m	- 1			
SV-09 0 1101200			17: 15			17:23		200 ML	120				
	*	×			*							->	
Ambient Conditi	Ambient Conditions When Sampling						Pur	np(s) Cali	bration an	Pump(s) Calibration and Flow Rate Check:	¥		
Temperature (F)		Barometric Pressure (mmHa)	e (mmHa)	Date	Cal. Tube ID:	ö	Date	Lab or Field	Flow Mei	Flow Meter Make/Serial #	ŏ	Operator name	ne
Start 65°		22.22	5	10/25	Pre-S	Pre-Survey							
					Post-	Post-Survey							
Special Notes/Instructions:													
Relinquished by: JECON Dill (signature)		Date/Time:	16	3130			Received by: (signature)	by: Auto	Autoria Caronder	ONNOR Date/Time:	ime:	6 37	ytl.
Relinquished by:		Date/Time:	2				Received by	by:		Date/Time			
Relinquished by: (signature)		Date/Time:					Received by: (signature)	e)		Date/Time:	ime:		
	Name		Shipment Condition	Condition		Sample Delivery Group ID	helivery G	roup ID	Custor	Custody Seal Intact	Cu	Custody Seal No.	il No.
Use PPI PL		6	(						Yes)	No None	090	66	86

Page \_\_\_\_ of S

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Beacon Environi Services,	_	Environmenta	s, Inc.
	Beacon	Enviro	Service

# CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050

Company: Kots Company: Address: City/State/Zip: Phone:			Project Man	nager:					<b>BEACON Project No.: 3588</b>	oject No	: 3588			
Address: City/State/Zip: Phone:			Phone:						Client PO No.			A	Analysis	Matrix
City/State/Zip: Phone:			Project Name:	ne:					Analysis Turnaround Time	naround	Time			
Phone:			Location:						Normal					iA f
			Sampler Name(s)	ame(s):					C Rush (	Rush (Specify): _	days		-	nəid
			Start	Start Time		Stop	Stop Time		Pre-survev Me	asured	Post-survey	, 		mAli
Location ID Tube II	Tube ID Number	Pump ID Number	Date	Time	Temp. (F)	Date	Time	Temp. (F)	Pump Flow Rate (mL/min)		Measured Pump Flow Rate (mL/min)	21-OT	TICs 8260E	
SV-16 A HO199673	673	ROA-PIOL-MA	10/26	15.24		0/20	13 40		200 mL/m.n		200 mL/mm	$\times$		
SV-16 B H0200229	2229	-		15:35		-	017:51		20mL/					
5V-17 4 10232690	0697			14:18			14:23				200 m L / mm	-		
SV-17 B HD190	HD199663			81: 11		-	14:23			1				
SV-03 A H0234823	1823			14:56			15:01		200 m/ /min		1			
8	222			14:56			15:01		200 ml/m	-	20 ml/min			
54-14 A GO 115947	5947			5:53			15:50				20nt/non			
SV-14 B GOLIS	15403	-	-	15:33			15:38			-	200rd/nin		-	
SV-04 A GO 119804	HOG			16:05			16:10		ZOMLIMIN		200mL/min			
SV-04 B 00163246	1246	4	1	16:05		7	16 10		20 m L/m		1 _ 1	>		
Amt	bient Conditio	Ambient Conditions When Sampling						Pur	np(s) Calibrat	tion and	Pump(s) Calibration and Flow Rate Check:			
	Temperature (F)	=) Barom	Barometric Pressure (mmHa)	e (mmHa)	Date	Cal. Tube ID:	ä	Date	Lab or Field FI	ow Meter	Flow Meter Make/Serial #	Onel	Onerator name	a
Start	71' F		5.28	matha	i0/26	Pre-S	Pre-Survey		-					2
Stop	75° €	Q	5.17	milta	10/21.	Post-	Post-Survey							
Special Notes/Instructions:				)	þ									
Resc	JJOCAS		Date/Time	1 fe	13:20			Received by: (signature)	by: Aun in Rowin M	ROAM	MAN Date Time:	e: 1207.6	23.	4ET:5
Relinquished by: (signature)			Date/Time:					Received by: (signature)	by: J		Date/Time:			
Relinquished by: (signature)			Date/Time:					Received by: (signature)	by: e)		Date/Time:	ë		
Lab Use Only	fou E x	ame	S S	Shipment Condition	Condition		Sample D	Sample Delivery Group ID		Custody Yes N	Custody Seal Intact	Cust 060	Custody Seal No. のらの了す R も	No.

Page 2 of 5

Beacon Environmental Services, Inc.

# CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050 410-838-8780 / fax: 410-838-8740

<b>Client Contact Information</b>	Iformation		Project Manager:	nager:					<b>BEACON Project No.: 3588</b>	No.: 3588			
Company: A	oteca		Phone:						Client PO No.		Ana	Analysis Ma	Matrix
Address:			Project Name:	ne:					Analysis Turnaround Time	und Time			
City/State/Zip:			Location:						Normal			iA tr	
Phone:			Sampler Name(s):	ame(s):					🗌 Rush (Specify)	fy): days	1	nəidn	
			Start	Start Time		Stol	Stop Time		Pre-survey Measured	d Post-survey		E nA \ 10	-
Location ID	Tube ID Number	Pump ID Number	Date	Time	Temp. (F)	Date	Time	Temp. (F)	Pump Flow Rate (mL/min)	Flov	11-OT	TICs 8260	) lio2
SV-12A	H0260253	ROA-PIDI-AA	10/26	85:91		10/26	Gh . 91		Don / MM	20 nL/nun	Х		
SV-120	Cousts			16:38			643		200 m/ 1 min				
A 11 - 12	GO /64559			17.16			12:71		- 4	100mL/min			
91-11B	20966 OF		-	17-16			17.71		ZODINLININ	in milmin			
SV-10 A	GOM7407		_	1749			17:54		200 mL/min				
SV-0 D	HO 236253	>	>	64:11		>	17:54		200ml/min	20CmL/nin	7		
	Ambient Condition	Ambient Conditions When Sampling						Pu	mp(s) Calibration a	Pump(s) Calibration and Flow Rate Check:			
	Temperature (F)		Barometric Pressure (mmHg)	re (mmHg)	Date	Cal. Tube ID:	ö	Date	Lab or Field Flow M	Flow Meter Make/Serial #	Operato	Operator name	
Start	1.12	25	5.28 "	malla	10/26	Pre-	Pre-Survey		-				
Stop	75°F	292	11.	mited	16/26	Post-	Post-Survey						
Special Notes/Instructions:	structions:			7		. *							1
Relinquished by: (signature)	JACERAJOR		Date/Time:	(0) (3)	30			Received by: (signature)	by Hundry Ronaward	ONDAR Date/Tim	Date/Time: 21/4/2016	IET.ST.	t
Relinquished by: (signature)	2		Date/Time:					Received by (signature)		Date/Time:	ne:		
Relinquished by: (signature)			Date/Time:					Received by: (signature)	l by: e)	Date/Time:	le:		
Lab Use	Courier Name	lame		Shipment Condition	Condition		Sample D	Sample Delivery Group ID		ody Seal I	Custod	Custody Seal No.	
Only	1002			(JOC)					(Yes)	No None	000	0603986	~

Page 3 of 5

Beacon	Environmental	Services, Inc.
C		

# CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050 410-838-8780 / fax: 410-838-8740

	1 1		Project Manager:	liager.					BEACON Project No.: 3588	ect No.: 35	88			
Company: 4	thread		Phone:					-	Client PO No.			V	Analyceic	Materia
Address:			Project Name	.eu					A solution T	i		t	Idiyala	INIGULIX
City/State/Zip:			Location:						Analysis lurnaround lime	around I II	ne		-	٦ir
Phone:			Sampler Name(s):	ame(s):						and A.	40.00			, tna
										Jecily).	days	T		iqu
			Start T	Time		Sto	Stop Time		Pre-survev Mea		Post-survey			
Location ID	Tube ID Number	Pump ID Number	Date	Time	Temp. (F)	Date	Time	Temp. (F)	Pump Flow Rate (mL/min)		Measured Pump Flow Rate (mL/min)	21-01	LIC <sup>s</sup> SS60B	ioobn Ə lioð
51-32A	Go 164954	ROA-PIOI-AA	£2/01	13:31		22/01	15:56		2004 / Mar		200 al 1	X		1
5V-32 B	G0177478	-		13:31			13:36		mallen			<		
51-314	H0200236			13:58		-	14:02		2	100 100 May	200 al lan			
SV-31 D	M; 102989		_	13:58			14:03		1-5	-	al lan			
51-30 A	G0167057			05:41			14:25				1/2010			
SV-30 B	GO 164172			05:41			三次三							
51-29 A	H0200227			H:55			15:00		200 m / m		n1 10.0	1		
9V-29B	HD200271			H:55			15:00		2mal land		11/10/11			
SV-25 A	1100 363			12:51			15:26		miniperious		1 1 mer			
SN-78 0	080 090	*	>	12:51		7	15:26				at lain	~		
	Ambient Conditio	Ambient Conditions When Sampling						Pur		n and Flow	v Rate Check			
	Temperature (F)		Barometric Pressure	e (mmHg)	Date	Cal. Tube ID:	ä	Date	Lab or Field Flow	Elow Mater Make/Sorial #	to/Coriol #			
Start	2072		.26 mm	HG	10/27	Pre-S	Pre-Survey	200			verocrial #	Chera	Operator name	-
Stop						Post-	Post-Survey							
	itructions:													
Relinquished by: (signature)	JELDENJORL		Date/Time:	1	12:30			Received by:	by: Auman	Tennel	Date/Time:	ie: Contraction	1	125.1
Relinquished by: (signature)	?		Date/Time:					Received by:		Man M	Date/Time:		45.	SAT
Relinquished by: (signature)			Date/Time:					(signature) Received by: (signature)	e) by:		Date/Time:	::		
Lab	Courier Name	me		Shipment Condition	ondition		Sample D	Sample Delivery Group ID		Custody Seal Intact	Intact	Custor	Gustody Seal No	4
Only	FedEx		a	bod	141					Kes No	None	0607976	326	
			0		14000								1	

Page 4 of 5

Environmental Services, Inc. Beacon

CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050

Company: A 24		Project Manager:					BEACON Project No.: 3588	No.: 3588				
Automotion		Phone:					Client PO No.			And	-	
Audress:		Project Name:					Analysis Turnaround Time	Time		Alidiyala		Matrix
City/State/Zip:		Location:								T		AIL .
Phone:		Sampler Name(s):					Rush (Specify):	ifv):	dave			/ Juai
		Start Time		st	Stop Time					1		
Location ID Tube ID Number		Date Time	E Temp. (F)	Date	Time	Temp. (F)	Pre-survey Measured Pump Flow Rate (mL/min)	<ul> <li>Measured Pump</li> <li>Flow Rate (ml /min)</li> </ul>	ey 'ump 1 /min)	8092: 21-0-	s)I	/ roobr
415	ROA-PIO1-AA	05:51 12:20	0	12/01	15:55		Zondan	200 mlan			-	
2 -		IS:50	0	-	15:55		100 mllan	200 ml/min	C. L	-		
		16:19	-		16:24		Icont/min	200 ml min	N.			
		16:19			16:24		200 m L/m.n	200 ml Inco				-
t o		16:52	~		16:57		200 milling	Pit million	Via Via			-
LCOILLINH d CT	>	4 16:52	- 1	>	16:57		200mL/m.r	20mb/min	~	>		
									-			
Ambient Condi	Ambient Conditions When Sampling										-	
Temnerature (E)	E E		-	Cal. Tube ID:		und	Pump(s) Calibration and Flow Rate Check: Lab or	nd Flow Rate (	Check:			
Start 710° F		7C 71 11	21			Date	-	Flow Meter Make/Serial #		Operator name	ame	ï
Ston 710 L	2 4		12/1	Pre-	Pre-Survey							
Special Notes/Instructions:	7	LS.16.mn Hg	0/21	Post	Post-Survey							
Relinquished by:												
		Date/Time:	02.0			Received by:	CA CONT Vinc	_	Date/Time:			1
Kelinquished by: (signature)						(signature) /	minariza a Tanha in		14/4/20. Date/Time:		htt:SP	44
Kelinquished by: (signature)		Date/Time:				(signature) Received by:	M:	Da	Date/Time:			
Lab Courtier Name	Mama					(signature)						

Beacon Project 3588 -- Page 58 of 63

of Page J

Custody Seal No.

à

06039

None

Yes

Custody Seal Intact No

Sample Delivery Group ID

Shipment Condition

Courier Name

Fe)

Lab Use Only

and i

# CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050 410-838-8780 / fax: 410-838-8740

Client Contract Information	nije meneticen		Broiset Manager	Tanan Tan	1		. 1 . 0		DEACON Distant No. 26000	No. 2500D				
חומות הסווומתו	momenum		LIUJECI IVIAI	Iddel. Out	Lord 1	, )tracy	tracycintera, con	502	DEAUON FIOJECT	00000ON			-	
Company: 1	NTERA		Phone:	505-246-16	6-1600	-			Client PO No.		An	Analysis		Matrix
Address: 6000	2	ptun Blud NE, Suite 220	Project Name:	ne: A b.	Railiers	-			Analysis Turnaro	Turnaround Time		-	-	
City/State/Zip:	Albug vergue	Albeq versue, NM 87166 27110	_	Albert	Man h	(m			Normal				-	ilA ti
Phone: 50	505-246 A1606		Sampler Name(s):	ime(s): M.	H Suph	. Frank	Rocker	- Clashort	Rush (Specify)	fy): days			-	nəid
			Start	Start Time	1,	Stop	Stop Time		Pre-survey Measure	d Post-survey		1		mA \ 1 26
Location ID	Tube ID Number	Pump ID Number	Date	Time	Temp. (F)	Date	Time	Temp. (F)	Pump Flow Rate (mL/min)	Flov	71-OT	8260E	SOIT	oobnl 9 lio2
SV-08-04	SV-08-04 HUI99658	INTERA-1	10/31/16	1609		10/31/16	1614		200	200	×		-	×
SV-98-04	H0199609	T-VUEUT	10/31/16	1609		11/12/01	1614		002	200	$\times$			×
Sv-08-03	H0199622	INTERA-1	10/31/16	ヒトタリ		10/31/16	1652		200	200	X			$\times$
SV-08-03	CO1++ FFIOS	INTERA-1	10/31/16	6471		10/31/16	1652		200	200	×		20	$\times$
10-t0-15	H0238242	TNTERS-1	91/2/11	1130		91/2/11	1135		200	200	X			$\times$
10-20-25	H0233609	INFERA-1	11/2/11	1130		11/2/11	1135		200	200	X		110	$\times$
20-60-25	40234516	INTERA-2	11/2/16	EZZI		NIZH	1232		200	200	×			$\times$
ra-ta-vs	HO 234 666	I-VIERA-1	11/2/11	1227		11/2/16	1232		200	200	X		-	×
hata-ns	G0115976	I-VIEUT-J	11/2/11	1254		11/2/11	1259		200	200	X			×
PO-FO-VS	GO165064	I-TENT	1/2/16	1254		11/2/11	1259		200	200	X			X
		Amblent Conditions When Sampling	Bu					P	imp(s) Calibration	Pump(s) Calibration and Flow Rate Check:	ock:			
	Temperature (F)		Barometric Pressure (mmHg)	e (mmHg)	Date	Cal. Tube ID:	ö	Date	Lab or Field Flow N	Flow Meter Make/Serial #				
Start						Pre-S	Pre-Survey							
Stop						Post-S	Post-Survey							
Special Notes/Instructions: T_nstell d_te		date vapor pin	set. Pins	s sit idle	fe	af leest	least 24-hours	1.00	before Sampling . Retriew	dek is	Sampling date	ig dat		Sample fe
Relinquished by: (signature)	COM MAN	they are	Date/Time:	7/2016	11	47		Received by: (signature)	by: A unit o Benow W	Zerrow W 11/RI	R/20	2026	14:286	2.8%
Relinquished by (signature)		I	Date/Time:					Received by: (signature)	by: () e)	Date/Time	ime:			
Relinquished by: (signature)			Date/Time:					Received by: (signature)	by: e)	Date/Time:	ime:			
Lab	Courier Name	r Name		Shipment Condition	Condition		Sample I	Sample Delivery Group ID		Custody Seal Intact		Custody Seal No.	/ Seal N	do.
Use Only	FedEx		0	Corolo					Yes	No None				
			0					l						

Page / of 5

## CHAIN-OF-CUSTODY RECORD

2203A Commerce Road, Suite 1 Forest Hill, MD 21050

<b>Client Contact Information</b>	information		Project Manager:	anager: 700	De They		Arey Cintera.con	~ co~	BEACON Project No.: 3588B	0.: 3588B				
Company:	Lutin		Phone:		746-166	20			Client PO No.		An	Analysis		Matrix
Address: 60	Address: 6000 4then Bhul NE St 220	J NE St 22	o Project Name:		Railword	[d			Analysis Turnaround Time	nd Time		-		-
City/State/Zip:	Albuquesus NM 87110	elleg w		V	Town 1	WN			Normal				-	t Air
Phone: 505	505-246-4600		Sampler Name(s)	Vame(s): 1	103	uph Frank	Rucebur Clark Short	late Short	Rush (Specify):	(): days				nəid
			Sta	Start Time	-	/ Stop			Pre-survey Measured	Post-survey		8	-	mA \ 1
Location ID	Tube ID Number	Pump ID Number	nber Date	Time	Temp. (F)	Date	Time	Temp. (F)	Pump Flow Rate (mL/min)	Flov	11-01	8260E	SOIT	oopul
SV-D7-04M	54-07-09M GOII 5955	INTERA-I	91/2/11	1316		11/2/11	1321		200	200	×			
the-ko-ns	SV-03-04 HOZZ4849	INTERA-1	91/2/11 t	1316		11/2/11	1321		200	200	X	_		
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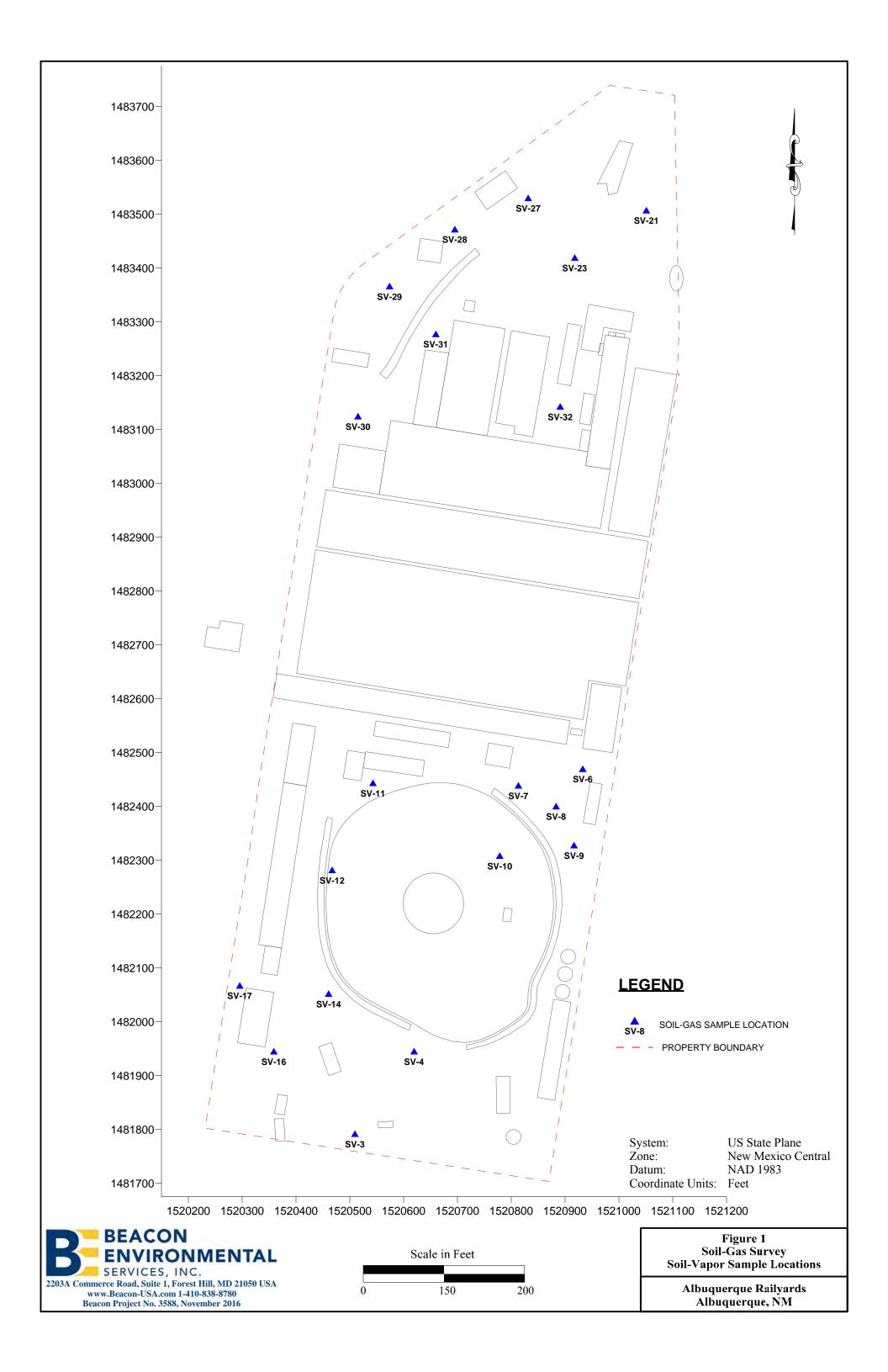
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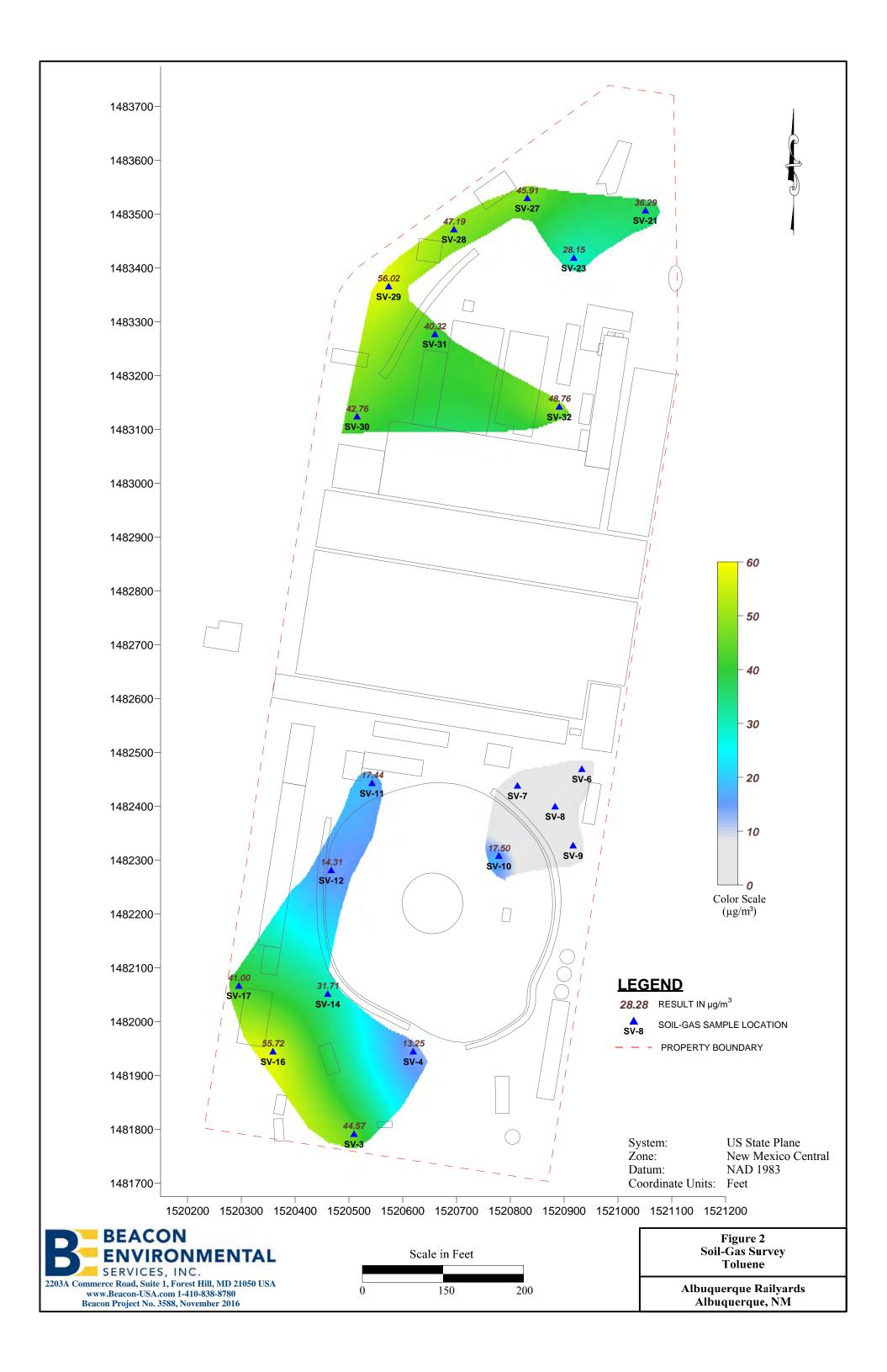
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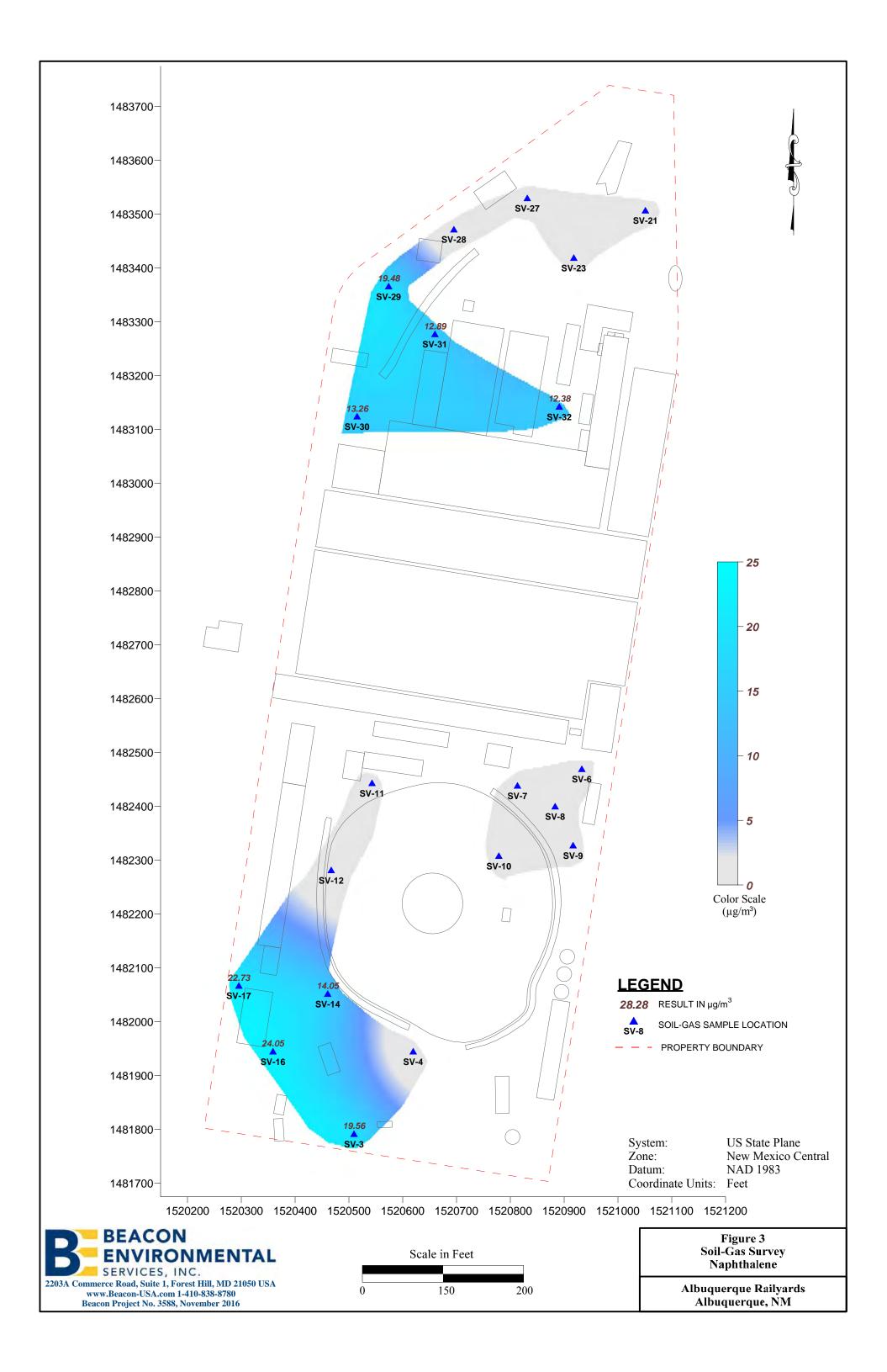
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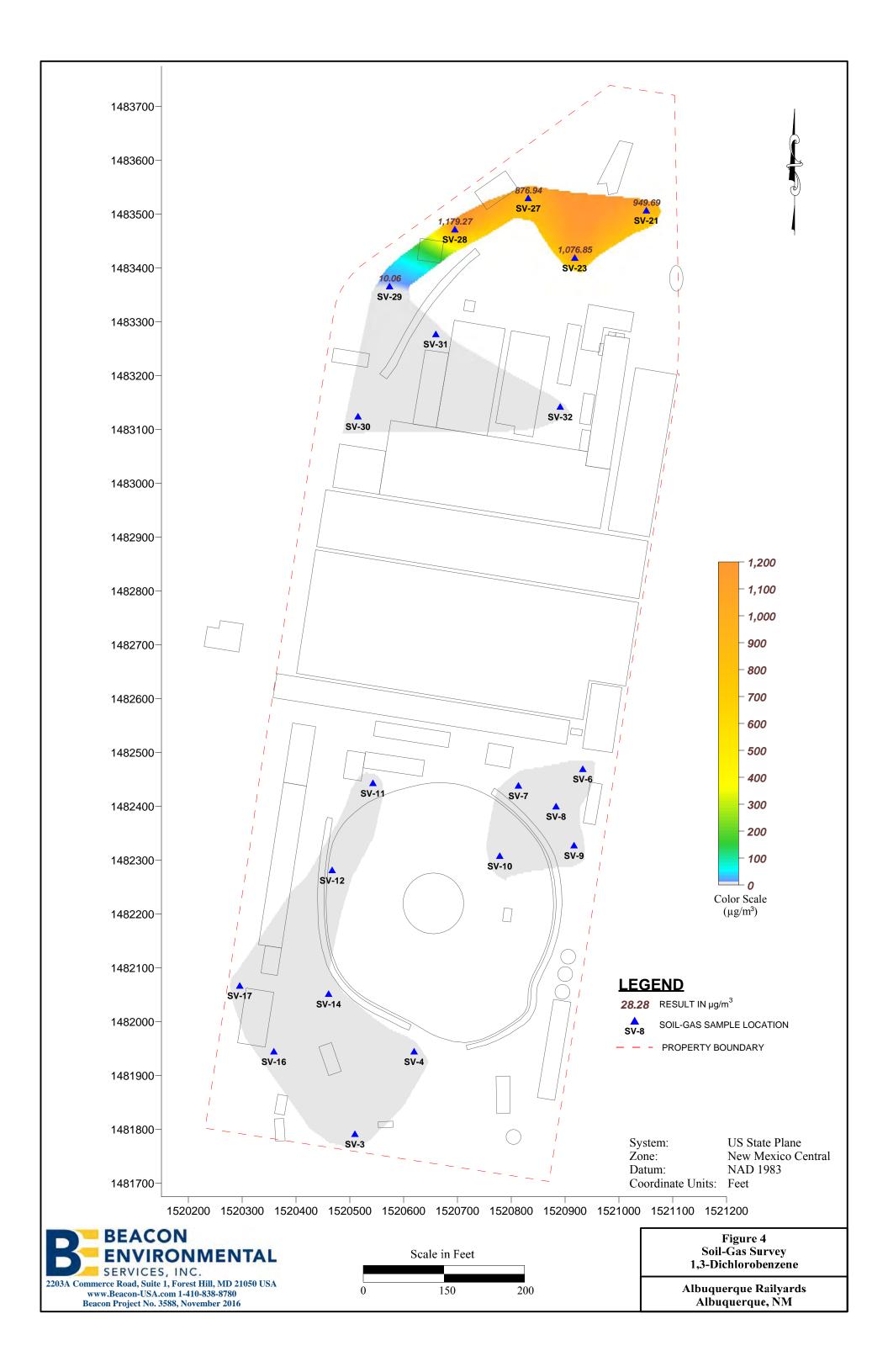
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### **APPENDIX C**

Calculation of Vapor Intrusion Screening Levels for Evaluation of Soil Gas Vapor Concerns at the City of Albuquerque Rail Yards, Albuquerque, Bernalillo County, New Mexico

### CALCULATION OF VAPOR INTRUSION SCREENING LEVELS (VISLs) FOR EVALUATION OF SOIL GAS VAPOR CONCERNS AT THE CITY OF ALBUQUERQUE RAIL YARDS, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

INTERA Incorporated (INTERA) calculated Vapor Intrusion Screening Levels (VISLs) using the U.S. Environmental Protection Agency (EPA) VISLs Calculator for detected constituents where the New Mexico Environmental Department (NMED) does not have established VISLs. These VISLs were calculated in order to evaluate soil vapor data collected at the City of Albuquerque (COA) Rail Yards, Albuquerque, Bernalillo County, New Mexico (Site). A list of VISLs calculated by INTERA using the EPA VISL Calculator for the Site are presented in the following table:

ETA VIELS calculated for the CO	A Rail Tarus, Albuqu	cique, new mexico
Chemical of Potential Concern (COPC)	CAS Number	EPA VISL (µg/m <sup>3</sup> )
1,2,4-Trimethylbenzene	95-63-6	240
1,4-Dioxane	123-91-1	190

 Table 1

 EPA VISLs calculated for the COA Rail Yards, Albuquerque, New Mexico

These VISLs represent target sub-slab and exterior soil gas concentrations for Site chemicals of potential concern (COPCs) and were calculated using default exposure parameters and factors altered to reflect Site-specific parameter options as provided in EPA's VISL Calculator (Version 3.5.1). The VISL Calculator incorporates basic guidance documented in EPA's VISL Calculator User's Guide (EPA, 2014) and is available for download at the following EPA website: <u>https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-levels-visls</u>. A brief description of default exposure parameters and factors used to in the calculation of EPA VISLs as well as the rationale for Site-specific inputs utilized by INTERA in the VISL Calculator are discussed further below.

As documented in the EPA VISL Calculator User's Guide (EPA, 2014), VISLs are calculated using recommended approaches in existing guidance and reflect target EPA indoor air concentrations modified to incorporate empirically-based conservative "generic" attenuation factors that reflect generally reasonable worst-case conditions. Standard default (generic) VISLs are based on default exposure parameters and factors that represent Reasonable Maximum Exposure [RME] conditions for long-term/chronic exposures and incorporate the latest toxicity values in the Regional Screening Levels (RSL) tables (EPA, 2014). The EPA RSL tables were last updated in May 2016 and are available for download at the following EPA website: <a href="http://www.epa.gov/region9/superfund/prg/">http://www.epa.gov/region9/superfund/prg/</a>.

When using the VISL Calculator, standard default VISLs can be adjusted slightly to reflect the following Site-specific criteria: (1) applicable site exposure scenario (either residential or commercial), (2) target risk for carcinogens, (3) target hazard quotient for non-carcinogens, and (4) average in-situ ground water temperature (stabilized temperature measured during well purging prior to ground water sampling).

INTERA inputted the following site specific information to calculate site-specific VISLs for the Site.

- (1) Exposure scenario: Residential, and
- (2) Total Target Carcinogenic Risk: 10E-5

These parameters were considered most appropriate to represent Site conditions reflective of future decision-making needs: Assigning a less conservative total target carcinogenic risk of 10E-5 is standard practice for assessing carcinogenic risk within the State of New Mexico as described in the New Mexico Environment Department (NMED) document, Risk Assessment Guidance for Site Investigations and Remediation (NMED, 2015). All other parameters used to calculate VISLs for the Site were reflective of default values, listed for completeness, below:

- Target Hazard Quotient for Non-carcinogens: 1
- Average Ground Water Temperature: 25 (degrees C)
- Default Inhalation Pathway Exposure Parameters (RME) for the Residential Exposure Scenario:
  - Averaging time for carcinogens: 70 (yrs)
  - Averaging time for non-carcinogens: 26 (yrs)
  - o Exposure duration: 26 (yrs)
  - Exposure frequency: 350 (days/yr)
  - Exposure time: 24 (hr/day)
- Generic Attenuation Factors:
  - o Groundwater Source for Vapors: 0.001
  - o Sub-Slab and Exterior Soil Gas Source for Vapors: 0.03
- Inhalation Unit Risk for Trichloroethylene (TCE) for the Residential Exposure Scenario:
  - Mutagenic component: 1.00E-6
  - Non-mutagenic component: 3.10E-6
- Mutagenic-mode-of-action (MMOA) adjustment factor: 72
- Exposure Durations and Age-Dependent Adjustment Factors for MMOAs:
  - 0 to 2 years: 10
  - o 2 to 6 years: 3
  - o 6 to 16 years: 3
  - o 16-26 years: 1

These default parameters are exposure factors based on EPA's Risk Assessment Guidance for Superfund [RAGS] (EPA, 1989) or EPA vapor intrusion guidance. In general, EPA discourages the alteration of these default parameters (EPA, 2014).

Several COPCs identified for the Site were unable to have an EPA VISL calculated for the following reasons:

- (1) 1,3-Dichlorobenzene (CAS # 541-73-1): no information for this chemical is currently listed
- (2) 2-Methylnaphthalene (CAS # 91-57-6): no inhalation toxicity information for this chemical is currently available
- (3) 1,3,5-Trimethylbenzene (CAS # 108-67-8): no inhalation toxicity information for this chemical is currently available.

### REFERENCES

Environmental Protection Agency (EPA). 2014. Vapor Intrusion Screening Level (VISL) Calculator User's Guide. Office of Solid Waste and Emergency Response Office of Superfund Remediation and Technology Innovation. May. ------. 2016. EPA VISL Calculator from https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-levels-visls. Updated May.

- ———. 1989. Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A). Interim Final. Office of Emergency and Remedial Response Document EPA/540/1-89/002. December.
- New Mexico Environment Department. 2015. Risk Assessment Guidance for Site Investigations and Remediation. July 2015.

### APPENDIX D

Asbestos and Lead-Based Paint Report(s)



DC Environmental Consulting and Training Services

### ASBESTOS AND LEAD BASED PAINT SURVEY City of Albuquerque Railyard Tender Repair Parcel 8 Albuquerque, NM

**PREPARED FOR:** 

Intera, Inc. 6000 Uptown Blvd, Suite 220 Albuquerque, New Mexico,87110



DC Environmental PO Box 9315 Albuquerque, New Mexico 87119

> November 9, 2016 Project No. 16-180







November 9, 2016 Project No. 16-180

Mr. Joe Tracy Intera Inc. 6000 Uptown Boulevard, NE Suite 200 Albuquerque, NM 87110

### Subject: Asbestos and Lead Based Paint inspection of the Tender Repair Parcel 8 – City of Albuquerque Railyard

Dear Mr. Joe Tracy;

In accordance with our proposal, DC Environmental has performed asbestos and lead based paint inspections of the above-referenced facility, located at the City of Albuquerque Railyard, 1100 2nd St SW, Albuquerque, New Mexico. The attached report presents our methodology, findings, opinions, and recommendations regarding the survey.

Lead Containing materials were identified at the Tender Repair. Asbestos-containing materials were identified at the Tender Repair.

We appreciate the opportunity to be of service to you on this project. Should you have any questions regarding this report, please contact the undersigned at your convenience.

Sincerely, ACME ENVIRONMENTAL INDUSTRIAL HYGIENE, INC. dba DC Environmental

J. David Charlesworth, CIH Certified Industrial Hygienist Karen Dremann, BS Senior Scientist

Distribution: (2) Addressee

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Table 1. Asbestos Lab Results Table 2. Lead Based Paint Laboratory Analysis

### **Appendices**

Appendix A. Asbestos Laboratory Analysis Results Appendix B. XRF Lead Measurements Table Appendix C Lead and Asbestos Data Appendix D. Lead Based Paint Laboratory Analysis Appendix E. Photographic Log Appendix F. Certifications

## **EXECUTIVE SUMMARY**

On October 31, 2016, DC Environmental performed an inspection of the Tender Repair located at the City of Albuquerque Railyard on 2<sup>nd</sup> street in Albuquerque, New Mexico. The inspection was conducted in a response to a request to identify materials which may be impacted during future renovation or demolition activities. Previous sampling and analysis of building materials for lead had been conducted at the property by Innovar in 2011 and Rhoades in 2013. Previous sampling for asbestos had been conducted by Terracon in 2005, Innovar in 2011 and Rhoades in 2013 (See Appendix C). The previous survey did not identify LBP or asbestos containing building materials. The focus of our inspection was to determine the presence, location and quantity of asbestos remaining within the facility, and to establish the basis for the presence of lead containing finishes within the structure. The space is being evaluated for a confidential client and the concern is that existing materials may contain asbestos and lead in the finishes.

The inspection design was to conduct a room-by-room investigation for asbestos-containing building materials. Access the functional spaces, where appropriate; evaluate the exterior surfaces; and sample materials suspect for asbestos within the Tender Repair.

Asbestos-containing building materials are those containing greater than one percent asbestos as determined by polarized light microscopy. Asbestos was detected in any of the building materials sampled.

Lead-based paint is defined as coatings containing surface area lead of 1.0 milligrams per square centimeter (1.0 mg/cm<sup>2</sup>) when evaluated by X-Ray Fluorescence. Lead based paint is further defined if laboratory analysis determines the lead content to be one half (0.5 %) percent by weight or greater. The lead inspection of the facility was conducted using an X-Ray Fluorescence (XRF) handheld instrument of select components or areas. The inspector did identify painted surfaces with excess lead above the stated regulatory limit.

<u>Lead-containing</u> materials are those with detectable levels of lead in the materials however not at levels above 1.0 mg/cm2. Lead containing materials **were** identified at the Tender Repair (see Appendix B XRF Lead Measurements). Individuals bidding for work should be aware of the presence of lead when performing demolition and renovation activities involving these items.

## 1. INTRODUCTION

In accordance with our proposal, DC Environmental has performed an investigation of the Tender Repair located at the City of Albuquerque Railyard in Albuquerque, New Mexico.

The inspection was conducted in a response to a request to have building materials evaluated for future renovation or demolition activities. The focus of our inspection was to determine the presence, location and quantity of asbestos and lead based paint present within the facility. The building is being inspected for a confidential client and the concern is that existing materials may contain asbestos in building materials and lead in the painted finishes.

This report has been prepared in accordance with generally accepted environmental science and engineering practices. This report is based upon conditions at the subject building at the time of the sampling activities and provides documentation of our findings and recommendations.

# 2. PURPOSE AND SCOPE OF SERVICES

The inspection design was to conduct a room-by-room investigation and assess the facility for the presence of asbestos-containing building materials, and lead-based paint.

The objective of this inspection was to perform the requisite sampling and present the findings along with any recommendations. The services performed by DC Environmental are outlined below.

- A reconnaissance of the area was conducted by Mr. David Charlesworth, Mr. Michael Neiman, and Mr. Steven Gutierrez all accredited Asbestos Building Inspectors, and a Certified Lead Assessor and Inspectors.
- Sampling was conducted using several different types of inspection tools and laboratory techniques including Polarized Light Microscopy and X-Ray Fluorescence.
- Report preparation summarizing our sampling methods and laboratory analysis are included. This report further details our conclusions and recommendations for the project.

## 3. SITE DESCRIPTION

The subject site consists of one structure, the Tender Repair

## **The Tender Repair**

The Tender Repair consists of a single building, roof and exterior. The Tender Repair is a concrete frame and concrete siding construction. Roofing appeared to be gravel and tar over felt paper on top of concrete.

# 4. ACTIVITIES

DC Environmental conducted a lead-based paint investigation and asbestos-containing building materials inspection on October 31, 2016 of the Tender Repair. Analysis of the Interior and exterior painted surfaces incorporated the use of an X-Ray Fluorescence Device. The Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence device was used to measure the lead content of surface coatings on representative homogenous components. Multiple XRF readings were recorded.

The site sampling activities are described below.

# 4.1. Asbestos-Containing Building Materials

Mr. David Charlesworth, Mr. Michael Nieman, and Mr. Steven Gutierrez conducted a visual inspection for asbestos-containing building materials at the above referenced building. Mr. Nieman collected a total of Twenty Five (25) samples that were tested for asbestos using Polarized Light Microscopy and stereomicroscopy bulk asbestos analysis. Analysis was conducted by Crisp Analytical, LLC of Carrollton, Texas. Crisp Analytical is an accredited laboratory and recognized by the National Voluntary Laboratory Accreditation Program. Based upon the samples tested, the following materials sampled **were** identified as asbestos-containing material.

# The white crane gasket rope,

# 12" x 12" off-white/tan floor tile Black roofing shingles with white gravel and black tar Black boiler pipe flange gaskets

The Environmental Protection Agency has established terminology regarding asbestos and specifically asbestos-containing building materials. Material which is friable are those materials which can be crushed, crumbled or reduced to powder by hand pressure. Non-friable materials are further characterized as Category I Non-Friable or Category II Non-Friable. Category I Non Friable includes four specific items: Packings, Gaskets, Resilient Flooring and Asphalt Roofing. Category II Non-Friable is everything else which cannot be crumbled or pulverized by hand pressure. These items include materials of drywall systems, plasters, asbestos-containing cements (Transite ®) and other materials declared non-friable by the asbestos inspector.

The EPA then clarifies that certain materials are Regulated Asbestos Containing Materials (RACM) and these include the following four designations:

- Friable materials;
- Category I Non-Friable Materials which have become friable;
- Category I Non-Friable Materials which have been subject to sanding, grinding, cutting and abrading; and
- Category II Non-friable materials which will be, or have been, subject to force during demolition or renovation.

Regulated Asbestos Containing Materials were **not** present within the structure.

## 4.2. Lead Based Paint Inspection

The presence of lead based paint was assessed in substantial compliance with the Housing and Urban Development guidelines. DC Environmental conducted a lead-based surface coating screening survey of the interior and exterior of the property to generally identify building components coated with lead.

The survey consisted of testing the lead concentrations of each of the accessible surfaces.

To complete the survey, an X- Ray Fluorescence device was used to perform the lead based paint inspection. The Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence device is capable of detecting lead in lead-based paint. The determination of lead in paint is defined as a surface content of at least 1.0 milligrams per square centimeter. If the readings were between the 0.9 to 1.0 mg/cm<sup>2</sup> range, then the readings are declared as either lead-based paint or lead-containing materials and sampling is recommended.

Surfaces that were tested with the XRF device included, but were not limited to the following: doors, ceiling, painted walls, structural steel support, painted door components, roof components, ventilation duct, gates, and framing.

To determine the wall designations, the front entry off of the street or primary doorway is the A wall and interior in a clockwise direction are the B, C and D walls respectively. Exterior walls are

similar in the designations.

The XRF device recorded readings did indicate lead based paint in surfaces on the interior and exterior of architectural details and finishes. Please refer to the XRF readings in the appendix to this document.

## 5. ANALYSES AND RESULTS

The results of samples and analysis are presented in the following tables. Copies of the laboratory analytical results are included in the appendix to this document.

		Asbestos
	Tender Repair	Type/calibrated/Visual
Sample #	Analyst physical description of subsample	estimate percent
16-180-100	CMU Interior North wall Tender Repair	ND
16-180-101	Window Putty Tender Repair	ND
16-180-102	Window Putty Tender Repair	ND
16-180-103	Window Putty Tender Repair	ND
16-180-104	Receptacle Box wiring Tender Repair	ND
16-180-105	White Floor Stripe Tender Repair	ND
16-180-106	Wood Block Floor Tender Repair	ND
16-180-107	Crane Gasket rope Tender Repair	22% Chrysotile
16-180-108	12x12 off white floor tile from office Tender	2% Chrysotile
16-180-109	12x12 off white floor tile from office Tender	2% Chrysotile
16-180-110	12x12 off white floor tile from office Tender	2% Chrysotile
16-180-111	2x4 White smooth ceiling tile Tender Repair	ND
16-180-112	2x4 White smooth ceiling tile Tender Repair	ND
16-180-113	2x4 White smooth ceiling tile Tender Repair	ND
16-180-114	Brown cork Pipe TSI Tender Repair	ND
16-180-115	Brown cork Pipe TSI Tender Repair	ND
16-180-116	Brown cork Pipe TSI Tender Repair	ND
16-180-117	White roofing material Tender Repair	2% Chrysotile
16-180-118	White roofing material Tender Repair	2% Chrysotile
16-180-119	White roofing material Tender Repair	2% Chrysotile
16-180-120	White mag block TSI Tender Repair	ND
16-180-121	White mag block TSI Tender Repair	ND

# 5.1. Table 1: Asbestos Sample Analysis

16-180-122	White mag block TSI Tender Repair	ND
16-180-123	West wall exterior wall mastic yellow Tender	ND
16-180-124	Boiler pipe Flange Gasket Tender Repair	48% Chrysotile

ND – None Detected

### 5.2 Table 2: Lead Based Paint Laboratory Analysis

Sample #	Tender Repair Analyst physical description of	Concentration % by Weight
	subsample	70 by Weight
16-180-1000	Red Floor Paint from Tender Repair	0.22
16-180-1001	White Floor Paint from Tender	0.91
16-180-1002	Repair Black Paint from Wall in	1.1
10 100 1002	Tender Repair	
16-180-1003	Black Paint from Column in Tender Repair	3.4
16-180-1004	Beige Paint from Wood Door in Tender Repair	0.17
16-180-1005	Black Concrete Wall Paint from Tender Repair	0.84
16-180-1006	Silver Paint from Metal wall panel in boiler room from	0.25
	Tender Repair	
16-180-1007	Black Paint from concrete window sill Tender Repair	0.17
16-180-1008	White Paint from Window Glass	0.74
16-180-1009	Red wood trim exterior of boiler room	1.9

Lead based paint is further defined if laboratory analysis determines the lead content to be one half (0.5 %) percent by weight or greater

## 6. FINDINGS AND CONCLUSIONS

The findings of this inspection are based on our visual observations and analysis of the measurements collected from the facility. Our findings are presented below.

## 6.1 Asbestos Sampling Analysis

The current visual inspection and sampling of building materials revealed no previously undocumented sources of asbestos-containing building materials. Asbestos-containing building materials **were** identified in the Tender Repair.

# 6.2 Lead Based Paint Analysis

DC Environmental conducted a lead-based surface coating inspection of the interior and exterior of the property to generally identify building components coated with or containing lead. The survey consisted of testing the lead concentrations of over the majority of the interior and exterior surfaces.

During the survey, testing combinations in representative room equivalents were sampled by X-Ray Fluorescence (XRF) in substantial compliance with the XRF protocols established by EPA and presented as guidance in the Housing and Urban Development (HUD) publications. Performance of this survey is consistent and in substantial compliance with the documented methodologies identified by EPA and HUD.

Based on the readings from the XRF devices materials at the Tender Repair **were** considered painted with Lead-based Paint (LBP).

Lead-Based Paint (LBP) is defined by HUD and the EPA as paint containing lead in amounts greater than or equal to 1.0 mg/cm<sup>2</sup> lead when analyzed by XRF or greater than 5000 parts per million or 0.5 percent by weight when analyzed by Flame Atomic Absorption.

There are materials in this building though, that are considered "lead-containing". Those materials are listed in Appendix B, XRF Lead Measurements. Contractors should follow the elements of the standard promulgated by the Occupational Safety and Health Administration. The Lead in Construction Standard 29 CFR 1926.62 applies to exposures to materials containing lead. Lead containing materials **were** identified at the Tender Repair (see Appendix B XRF Lead Measurements). Individuals bidding for work should be aware of the presence of lead when performing demolition and renovation activities involving these items.

## 7. RECOMMENDATIONS

Based on our visual observations and the laboratory results, DC Environmental recommends the following:

The Lead-based Paint inspection **did** identify "lead-based paint" at the Tender Repair. Leadcontaining items **were** identified at the Tender Repair. Those material are listed in Appendix B, XRF Lead Measurements. These materials are regulated by OSHA in regards to those individuals which could be exposed during repair, renovation or demolition. It is recommended to have trained professionals in the OSHA Lead Construction standard handle the lead-based paint and lead-containing materials during disturbance of the material. At the conclusion of the construction activities we recommend a Lead Risk Assessment to include soil testing and settled dust be performed.

Select materials containing asbestos have been identified in the facility. Asbestos **is** present in the above identified materials. The materials containing asbestos will require abatement before substantial renovation or demolition can commence.

We appreciate the opportunity to provide sampling and inspection of this area. Should you have additional questions, or if conditions change substantially, please contact us at your earliest convenience. Sincerely,

DC Environmental David Charlesworth Certified Industrial Hygienist

### LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities.

The environmental interpretations and opinions contained in this report are based on the results of instrumentation, laboratory tests and/or analyses Acme Environmental Industrial Hygiene, Inc., has no involvement in, or control over, such equipment, testing and/or analysis. Acme Environmental Industrial Hygiene, Inc, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Acme Environmental Industrial Hygiene, Inc., has no control.

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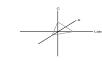
This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

# Appendix A Asbestos Laboratory Results

Crisp Analytical, L.L.C.

CA Labs Dedicated to Quality

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798



**CA Labs, L.L.C.** 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

#### DC Environmental

PO Box 9315 Albuquerque, NM 87119 Attn:David CharlesworthCustomer Project:DCE 16-180, Rail Yard Parcel 8 Tender RepairReference #:CAL16117603JEDate:11/16/2016

#### **Analysis and Method**

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

#### Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.

#### Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235 AIHA LAP, LLC Laboratory #102929 Crisp Analytical, L.L.C. 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

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# Overview of Project Sample Material Containing Asbestos

Customer Proje	ct:	DCE 16-180, Rail Yard Parcel 8	Tender Repair	CA Labs Project #: CAL16117603JE
Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
16-180-107	107-1	Crane Gasket Rope/ white gasketing	22% Chrysotile	white gasketing tan floor tile
16-180-108	108-1	12x12 Off-White Floor Tile/ tan floor tile	2% Chrysotile	black roofing shingle with white gravel and black tar black gasketing
16-180-109	109-1	12x12 Off-White Floor Tile/ tan floor tile	2% Chrysotile	_
16-180-110	110-1	12x12 Off-White Floor Tile/ tan floor tile	2% Chrysotile	_
16-180-117	117-1	White Roofing Material/ black roofing shingle with white gravel and black tar	2% Chrysotile	_
16-180-118	118-1	White Roofing Material/ black roofing shingle with white gravel and black tar	2% Chrysotile	_
16-180-119	119-1	White Roofing Material/ black roofing shingle with white gravel and black tar	2% Chrysotile	_
16-180-124	124-1	<b>Boiler Pipe Flange Gasket</b> / black gasketing	48% Chrysotile	_
16-180-124		gasketing Dallas NVLAP Lab Code 200349-0 T		

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate gypsum - gypsum bi - binder	pe - perlite qu - quartz	fg - fiberglass mw - mineral wool wo - wollastinite	pa - palygorskite (clay)
or - organic ma - matrix		ta - talc sy - synthetic	
mi - mica ve - vermiculite ot - other		ce - cellulose br - brucite ka - kaolin (clay)	

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**CA Labs, L.L.C.** 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

Customer Info: Attn: David Charlesworth <i>DC Environmental</i> PO Box 9315 Albuquerque, NM 87119 Phone # 505-869-8000 Fax # 505-869-9453		DCE 16	er Project: -180, Rail Yard Parcel					
		8 Tender Repair <b>Turnaround Time:</b> 5 Days		Date: Samples Received: Date Of Sampling: Purchase Order #:	11/16/2016 11/10/16 10:30am 10/27/2016			
Sample #	Com L ment	_ayer #	Analysts Phys Subsample	sical Description of	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
16-180-100	1	00-1	CMU/ gray cemer	t / mortar	у	None Detected		100% qu,ca
16-180-101	1	01-1	Window Putty/ g	ray caulking	у	None Detected		100% qu,ca
16-180-102	1	102-1	<b>Window Putty</b> / gr	ay caulking	У	None Detected		100% qu,ca
16-180-103	1	103-1	<b>Window Putty</b> / gi	ay caulking	У	None Detected		100% qu,ca
16-180-104	1	104-1	Receptacle Box \	<b>Viring</b> / gray gasketing	У	None Detected	62% ce	38% qu,bi,ca
16-180-105	1	105-1	White Floor Strip	<b>e</b> / tan flooring	у	None Detected		100% qu,bi,ca
16-180-106	1		Wood Block Floo fragments		у	None Detected	100% ce	
		/lethod:	Interim (40CFR Part 7	763 Appendix E to Subpart vashing for carbonate base	, <b>LLC Lak</b> E) / Improved ed samples, ch	emical reduction for organically b ersion attaining / becke line meth is ce - cellulose l wool br - brucite nite ka - kaolin (cla pa - palygorski	les received in good condition unle bound components, oil immersion f od. y)	
2. Fire Damage no sig 3. Actinolite in associa	gnificant fiber da ation with Vermi I - attached to p	amages e culite	Julie Julie A orted percentages reflect of ffecting fibrous percentage positive layer and contamin	nalyst Inaltered fibers		6. Anthophyllite in association with Fib 7. Contamination suspected from othe 8. Favorable scenario for water separa 9. < 1% Result point counted positive 10. TEM analysis suggested	r building materials ttion on vermiculite for possible analysis b	Technical Manager Chad Lytle

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DC Enviro PO Box 931	Customer Info: Attn: David Charlesworth DC Environmental PO Box 9315 Albuquerque, NM 87119		th	DCE 16 8 Tende	<b>ter Project:</b> -180, Rail Yard Parcel er Repair	CA Labs Project #: CAL16117603JE Date:	11/16/2016	
Phone # Fax #	505-869 505-869				5 Days	ound Time:	Samples Received: Date Of Sampling: Purchase Order #:	10/27/2016
Sample #	Com L ment	_ayer #	Analysts Physical Subsample	Description of	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
16-180-107	1	107-1	Crane Gasket Rope/ v	white gasketing	у	22% Chrysotile	30% ce	48% qu,bi,ca
16-180-108	1	108-1	12x12 Off-White Floor	<b>r Tile</b> / tan floor tile	у	2% Chrysotile		98% qu,ca
	1	108-2	tan mastic with debris		n	None Detected		100% gy,bi
16-180-109	1	109-1	12x12 Off-White Floor	<b>r Tile</b> / tan floor tile	у	2% Chrysotile		98% qu,ca
	1	109-2	tan mastic with debris		n	None Detected	2% ce	98% gy,bi
16-180-110	1	110-1	12x12 Off-White Floor	<b>r Tile</b> / tan floor tile	у	2% Chrysotile		98% qu,ca
	1		tan mastic with debris		n	None Detected	3% ce	97% gy,bi
		Method: eparatio	n Method: HCL acid washin ider ca - carbonate m gypsum - gypsum ve bi - binder of or - organic pe	<b>AIHA LAP</b> ppendix E to Subpart ng for carbonate base	E) / Improved	emical reduction for organically b ersion attaining / becke line metho ss ce - cellulose I wool br - brucite inite ka - kaolin (cla pa - palygorski	es received in good condition unle ound components, oil immersion f bd. y)	
<ol> <li>2. Fire Damage no sig</li> <li>3. Actinolite in associa</li> </ol>	gnificant fiber da ation with Vermi I - attached to p	amages e iculite	Julio Ro Julio Ro Analy orted percentages reflect unalter fecting fibrous percentages ositive layer and contamination i	/St ed fibers		<ol> <li>Anthophyllite in association with Fibr</li> <li>Contamination suspected from other</li> <li>Favorable scenario for water separat</li> <li>&lt;1% Result point counted positive</li> <li>TEM analysis suggested</li> </ol>	building materials tion on vermiculite for possible analysis b	Technical Manager Chad Lytle

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	Customer Info: Attn: David Charlesworth		David Charlesworth	Custon	ner Project:	CA Labs Project #:	
	<b>DC Environmental</b> PO Box 9315					CAL16117603JE	
Albuquerque		87110	3		-180, Rail Yard Parcel		11/10/0010
Albuqueique	5, 1111	0/112			er Repair	Date:	11/16/2016 11/10/16 10:30am
Dhana #	505 0	~~ ~~			ound Time:	Samples Received	
Phone #	505-8			5 Days		Date Of Sampling:	10/27/2016
Fax #	505-8			Llomo	Achastas tursa /	Purchase Order #:	Non fibrous tuno
Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo- geneo		Non-asbestos fiber type / percent	Non-fibrous type / percent
	mont	"	Cabbampio	us	estimate percent		, porooni
				(Y/N)			
16-180-111		111-1	2x4 White Smooth Ceiling Tile/ white surfacing	V	None Detected		100% qu,bi
10 100 111		111 1	Surracing	y	None Deletied		10078 qu,bi
		111-2	yellow fibrous ceiling tile	У	None Detected	100% fg	
			2x4 White Smooth Ceiling Tile/ white				
16-180-112		112-1	surfacing	У	None Detected		100% qu,bi
					Nama Data ata d	1000/ 6-	
		112-2	yellow fibrous ceiling tile	У	None Detected	100% fg	
16-180-113		113-1	2x4 White Smooth Ceiling Tile/ white surfacing	V	None Detected		100% qu,bi
				,			
		113-2	yellow fibrous ceiling tile	У	None Detected	100% fg	
16 100 114			Brown Cork Pipe TSI/ black and brown	1	None Detected		100% au bi ar
16-180-114			corking Dallas NVLAP Lab Code 200349-0	y TEM/DI M	TCEQ# T104704513-1	5-3 TDH 30-0235	100% qu,bi,or
					boratory #102929	J-5 TDT 30-0233	
	Analysi	s Method:	Interim (40CFR Part 763 Appendix E to Subpar			les received in good condition unl	ess noted.
		Preparati	on Method: HCL acid washing for carbonate bas identification of asbesto		nemical reduction for organically ersion attaining / becke line meth		for
			ca - carbonate mi - mica	fg - fibergla	ss ce - cellulose		
			gypsum - gypsum ve - vermiculite bi - binder ot -other	mw - minera wo - wollast		(v)	
			or - organic pe - perlite	ta - talc	pa - palygorsk		roved Signatories:
			ma - matrix qu - quartz	sy - synthet	ic		
			Joules			e. C. pa	
			Julio Robles			QAC	Technical Manager
			Analyst			Leslie Crisp, P.G.	Chad Lytle
			ported percentages reflect unaltered fibers		6. Anthophyllite in association with Fib	rous Talc	Chad Lytic
3. Actinolite in associa	ation with Ve	miculite	effecting fibrous percentages			ation on vermiculite for possible analysis	by another method
<ol> <li>Layer not analyzed</li> <li>Not enough sample</li> </ol>		o previous	positive layer and contamination is suspected		<ol> <li>&lt; 1% Result point counted positive</li> <li>TEM analysis suggested</li> </ol>		

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Customer Info: Attn: David Charlesworth DC Environmental			Custom	ner Project:	CA Labs Project #: CAL16117603JE			
	PO Box 9315 Albuquerque, NM 87119 Phone # 505-869-8000		8 Tende <b>Turnarc</b>	-180, Rail Yard Parc er Repair <b>bund Time:</b>	Date: Samples Received:	11/16/2016 11/10/16 10:30am		
Phone # Fax #	505-869-8 505-869-9		5 Days		Date Of Sampling: Purchase Order #:			
Sample #	Com Lay ment #	er Analysts Physical Description of	of Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent		
16-180-115	115	Brown Cork Pipe TSI/ black and brov -1 corking	wn Y	None Detected		100% qu,bi,or		
16-180-116	116	Brown Cork Pipe TSI/ black and brov -1 corking	wn Y	None Detected		100% qu,bi,or		
16-180-117	117	White Roofing Material/ black roofing -1 shingle with white gravel and black tar		2% Chrysotile	10% ce	88% qu,bi		
16-180-118	118	White Roofing Material/ black roofing -1 shingle with white gravel and black tar		2% Chrysotile	11% ce	87% qu,bi		
16-180-119	119	White Roofing Material/ black roofing -1 shingle with white gravel and black tar		2% Chrysotile	12% ce	86% qu,bi		
16-180-120	120	-1 White Mag Block TSI/ white insulation	n y	None Detected	12% ce	88% qu,ca,ma		
16-180-121	121	-1 White Mag Block TSI/ white insulation	,	None Detected	14% ce	86% qu,ca,ma		
		Dallas NVLAP Lab Code 200349-0		TCEQ# T104704513-	-15-3 TDH 30-0235			
		od: Interim (40CFR Part 763 Appendix E to Subp ration Method: HCL acid washing for carbonate b	part E) / Improved based samples, ch	nemical reduction for organical ersion attaining / becke line me ss ce - cellulos Il wool br - brucite	y bound components, oil immersion f thod. e			
		or - organic pe - perlite ma - matrix qu - quartz	ta - talc sy - syntheti	pa - palygor	skite (clay) Appro	oved Signatories:		
		Julio Robles			QAC			
<ol> <li>Fire Damage no sig</li> <li>Actinolite in associa</li> </ol>	gnificant fiber damag ation with Vermiculite	Analyst reported percentages reflect unaltered fibers es effecting fibrous percentages		<ol> <li>Anthophyllite in association with I</li> <li>Contamination suspected from of</li> <li>Favorable scenario for water sep</li> <li>&lt; 1% Result point counted posit</li> </ol>	Leslie Crisp, P.G. Fibrous Talc ther building materials aration on vermiculite for possible analysis b	Technical Manager Chad Lytle		

**CA Labs** 

**Dedicated to** Quality

Crisp Analytical, L.L.C. 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798



CA Labs, L.L.C. 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

Customer I DC Enviro			David Charlesworth	Custom	er Project:	CA Labs Project #: CAL16117603JE	
PO Box 931 Albuquerqu	-	87119		DCE 16- 8 Tende	180, Rail Yard Parcel r Repair	Date:	11/16/2016
					und Time:	Samples Received:	11/10/16 10:30am
Phone #	505-8	69-800	0	5 Days		Date Of Sampling:	10/27/2016
Fax #	505-8	69-945	3	-		Purchase Order #:	
Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
16-180-122		122-1	White Mag Block TSI/ white insulation	у	None Detected	13% ce	87% qu,ca,ma
16-180-123		123-1	Exterior Wall Mastic Yellow/ tan mastic	y	None Detected		100% gy,bi
		123-2	black foam	у	None Detected		100% qu,or
16-180-124		124-1	<b>Boiler Pipe Flange Gasket</b> / black gasketing	у	48% Chrysotile		52% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

#### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate gypsum - gypsum bi - binder or - organic ma - matrix

qu - quartz Alles

mi - mica

ot -other

pe - perlite

ve - vermiculite

Julio Robles Analyst

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers 2. Fire Damage no significant fiber damages effecting fibrous percentages

3. Actinolite in association with Vermiculite

4. Laver not analyzed - attached to previous positive laver and contamination is suspected

5. Not enough sample to analyze

fg - fiberglass mw - mineral wool wo - wollastinite ta - talc sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

eh.po

QAC Leslie Crisp, P.G. **Technical Manager** Chad Lytle

Anthophyllite in association with Fibrous Talc
 Contamination suspected from other building materials

8. Favorable scenario for water separation on vermiculite for possible analysis by another method

9. < 1% Result point counted positive

10. TEM analysis suggested

					CA	-161	176	03
0			PO / Job#: DCE	16-180		and the second sec	10/27/2016	
DC Environmental			Turn Around Tim	e: Same I	Day / IDay /	2Day / 3	Day / 4Day	(SDay)
Consulting and Train	ing Services g Safety in the	Workplace"	DPCM: NIOS	SH 7400A	/ 🗖 NIOSH	7400B	C Rotomet	ier
DC Environmental PO Box 9315 Albuquerque, NM 87119		(	PLM: Stand	lard / 🗖	Point Count 40	00 - 1000 /	CARB 4	35
Contact: J. David Charlesworth			TEM Air: A		Contraction of the second seco		a range	
Phone: 505.869.8000	Fax: 505.8	369.9453	TEM Water:	Potable	/ D Non-Pota	ible / 🗆 V	Veight %	6(str/mass)
E-mail: JDCharlesworthcih@gmail.c			□ IAQ Particle Id □ Particle Identifi	entification	on (PLM LAB) EM LAB)		D PLM Opac	
Site: City of Albuquerque (In	ntera)		Metals Analysis					
Site Location: Rail Yard Pard	cel 8 Tender R	epair	Matrix:					
		1	Analytes:					
Comments:								
		Samula Lauria / Darrow	lada (Tark	1	FOR AIR SAM	MPLES ON	JLY	Sample
Sample ID	Date	Sample Location / Descr	iption / Task	Туре	Time On/Off	Avg. LPM	Total Time	Area / Air Volume
16-180-100	10/27	CMU Interior North wall	Tender Repair	A P C		-	Thic	volume
16-180-101	10/27	Window Putty Tend	er Repair	A P C				
16-180-102	10/27	Window Putty Tend	er Repair	A P C		-		
16-180-103	10/27	Window Putty Tend	er Repair	A P C				
16-180-104	10/27	Receptacle Box wiring	Tender Repair	A P C		-		
16-180-105	10/27	White Floor Stripe Ter	nder Repair	A P C		-		
16-180-106	10/27	Wood Block Floor Ter	nder Repair	A P C				
16-180-107	10/27	Crane Gasket rope Te	nder Repair	A P C		-		
16-180-108	10/27	12x12 off white floor til Tender Repa		A P C		-		
16-180-109	10/27	12x12 off white floor til Tender Repa		A P C				
Sampled By: Steven Gutierre	Z							
Shipped Via: 🗆 Fed Ex 🛛	DHL U	PS 🗇 US Mail 🗇 Courie	r 🗖 Drop Off	C Othe	г:			
Relinquished By: Steven Gutiern Date / Time:11/09/2016 5:00PM		Relinquished By: Date / Time:			Relinquished I Date / Time:	Ву:		
Received By:		Received By:			Received By:			
Date / Time: 11-10-16	LOT SOP	Date / Time:			Date / Time:			
Condition Acceptable?   Yes	🗆 No	Condition Acceptable?	Yes 🗆 No		Condition Acc	eptable?	J Yes 🖸	No

D			PO / John DO	E 16 100	C		0176		
	6-1		PO/ Job#: DC	PO / Job#: DCE 16-180 Date :10/27/2016					
Consulting and T	raining Services		Site: City of Albuquerque (Intera)						
"Promoting Safety in the Workplace" DC Environmental			Site Location:	Rail Yard	Parcel 8 Te	nder Repa	ir		
PO Box 9315 Albuquerque, NM 87119			Comments:						
Contact: J. David Charlesworth									
Phone: 505.869.8000	-								
E-mail: DCharlesworthcih@gmail.		.869.9453							
Continuation Sheet for Sam		Summe day							
San Sheet for San	pre chain of C	ustody		_					
Sample ID	Date	Sample Location / De	scription / Test	1	FOR AIR SAI	MPLES ON	ILY	Sample Area /	
			acciption / 1858	Туре	Time On/Off	Avg. LPM	Total Time	Air	
16-180-110	10/27	12x12 off white floor		A	Oneon	LIN	Time	Volume	
16-180-111	-	Tender Ro		С					
10-180-111	10/27	2x4 White smooth ce Repai	iling tile Tender r	P					
16-180-112	10/27	2x4 White smooth ce Repai	iling tile Tender	A P					
16-180-113	10/27	2x4 White smooth ce Repair	iling tile Tender	A P					
16-180-114	10/27	Brown cork Pipe TSI		A P					
16-180-115	10/27	Brown cork Pipe TSI	Tender Repair	A P					
16-180-116	10/27	Brown cork Pipe TSI	Tender Repair	A P					
16-180-117	10/27	White roofing materia	I Tender Repair	A P					
16-180-118	10/27	White roofing materia	I Tender Repair	A P					
16-180-119	10/27	White roofing materia	I Tender Repair	A P					
16-180-120	10/27	White mag block TSI	Tender Repair	A P					
16-180-121	10/27	White mag block TSI Tender Repair		A P					
16-180-122	10/27	White mag block TSI Tender Repair		A P					
16-180-123	10/27	West wall exterior wal Tender Rep		A P C					
16-180-124	10/27	Boiler pipe Flange G Repair		A P C					

# Appendix B XRF Lead Measurements

Project #	16-180	Project Name <u>Tender Repair</u>	Date	10/31/16
Address		Rail Yards		
Technician	M. I	Nieman		

	Time :	09:45	Units	1235	Results	Average
1	Film	Cal.			1.4	
2	Film	Cal.			1.6	
3	Film	Cal.			1.4	1.5
4		Cal.			-0.0	
5		Cal			-0.0	
6		Cal.			0.3	0.1
XRF Test	Location /	Component -	Component			Result /
Number	Room	Designation	Number	Color	Substrate	Reading
7	Interior	A Wall		Black	Concrete	0.3
8	Interior	B Wall		Black	Concrete	0.1
9	Interior	B Wall		Black	CMU	-0.1
10	Interior	B Wall		White	CMU	-0.0
11	Interior	C Wall		Black	Concrete	0.2
12	Interior	D Wall		Black	Concrete	0.4
13	Interior	D Wall		Gray	Concrete	-0.0
14	Interior	A Wall Column	A-1	Black	Metal	1.0
15	Interior	A Wall Column	A-2	Silver	Metal	1.9
16	Interior	Window	A-3	Silver	Metal	1.0
17	Interior	Electrical Box A Wall		Green	Metal	-0.1
18	Interior	A Wall Parts Shelf		Green	Metal	-0.2
19	Interior	Door	A-1	Black	Metal	0.2
20	Interior	Door Frame	A-1	Black	Metal	0.4
21	Interior	B Wall Rack		Gray	Metal	-0.1
22	Interior	Door B Wall		Silver	Metal	<b>&gt;9.9</b>
23	Interior	Garage Door Frame	B-1	Black	Metal	-0.1
24	Interior	Door	B-2	White	Metal	-0.1
25	Interior	Floor Stripe		White	Concrete	2.1
26	Interior	C Wall Wash Sink		Silver	Metal	-0.1
27	Interior	Rolling Door	C-1	Black	Wood	0.1
	Interior	Small Door in Rolling				
28		Door		White	Wood	1.0
29	Interior Office	A Wall		White	Wood	-0.2
30	Interior Office	Office Window	A-1	Gray	Metal	-0.0
31	Interior Office	Window Sill	B-2	Gray	Metal	-0.0
32	Interior Office	Duct Work		Gray	Metal	0.1
33	Interior Office	Door Frame	D-1	Gray	Wood	0.1

34	Interior Office	Crane Carriage		Silver	Metal	-0.1
35	Interior Office	Cane Wheel Housing		Silver	Metal	-0.0
35	Interior Office	A-Wall beam		Silver	Metal	-0.0 4.4
	Interior Office					
37		Crane Ladder Frame		Silver	Metal	-0.1
20	Interior Office	Crane Catwalk		Cilver	N 4 a t a l	0.2
38		Railing		Silver	Metal	-0.2
20	Interior Office	Crane Catwalk		C'1		0.0
39	E to day	Decking		Silver	Wood	0.0
10	Exterior	C 14/- II		Off-	Constants	
40	<b>-</b>	C-Wall		White	Concrete	-0.0
	Exterior			Off-		
41		C-Wall Column		White	Steel	1.0
	Exterior			Off-		
42		Bollard		White	Steel	-0.1
43	Exterior	Window Frame	A-6	Red	Steel	0.0
44	Exterior	B-Wall Column		Gray	Concrete	-0.2
45	Exterior	B-Wall		Gray	CMU	-0.0
46	Exterior	Window Sill	B-1	Gray	Concrete	-0.4
47	Exterior	A-Wall		Beige	Concrete	-0.3
	Boiler Room					
48	Interior Shop	Door Frame	A-1	Black	Steel	1.0
	Boiler Room					
49	Interior Shop	A-Wall		Gray	Concrete	-0.1
	Boiler Room					
50	Interior Shop	Window Sill	D-1	Gray	Metal	1.8
	Boiler Room					
51	Interior Shop	Window Frame	D-1	Black	Metal	0.5
	Boiler Room					
52	Interior Shop	Door	A-1	Black	Metal	1.0
	Boiler Room					
53	Interior Shop	Boiler Piping		Silver	Metal	-0.0
	Boiler Room					
54	Interior Shop	Vertical Tank		Silver	Metal	-0.1
	Boiler Room					
55	Interior Shop	Duct Work		Gray	Metal	>9.9
	Boiler Room					
56	Interior Shop	Belt Guard		Silver	Metal	-0.0
	Boiler Room					
57	Interior Shop	Motor Stand		Green	Concrete	-0.0
	Boiler Room					
58	Interior Shop	Service Door		Black	Metal	0.1
	Exterior Boiler			Off-		
59	Room	A-Wall		White	Steel	-0.0

	Exterior Boiler					
60	Room	A-Wall		Red	Wood	0.4
	Exterior Boiler					
61	Room	Door	A-1	Beige	Metal	-0.0
	Exterior Boiler					
62	Room	Toilet Partitions		Silver	Metal	-0.1
	Exterior Boiler					
63	Room	Window Frames	A-1	Green	Metal	02.
	Tir	ne: 1125			Results	Average
64	Film	Cal.			1.3	
65	Film	Cal.			1.0	
66	Film	Cal.			1.0	1.1
67		Cal.			0.1	
68		Cal.			0.4	
69		Cal.			0.2	0.2

# Appendix C Asbestos and LBP Data

ID	Read No/Sample ID Le	ead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
1	7 0.1	1	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Sill	QM	Wood	Brown	Interior	Innovar, 2011
2	8 0.1	1	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Sash	QM	Wood	Brown	Interior	Innovar, 2011
3	9 0.1	2	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
4	10 0.3	2	mg/cm2		1	Railyards Amtrack Office	Office	А	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
5	11 -0	.2	mg/cm2		1	Railyards Amtrack Office	Office	В	Wall	U Ctr		QM	Plaster	White	Interior	Innovar, 2011
6	12 0		mg/cm2		1	Railyards Amtrack Office	Office	С	Door	Ctr	U Ctr	QM	Steel	Brown	Interior	Innovar, 2011
7	13 0		mg/cm2		1	Railyards Amtrack Office	Office	С	Door	Ctr	Lft casing	QM	Steel	Brown	Interior	Innovar, 2011
8	14 0.2	2	mg/cm2		1	Railyards Amtrack Office	Office	В	Window	Ctr	Sill	QM	Wood	Brown	Interior	Innovar, 2011
9	15 0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Window	Ctr	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
10	16 0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Window	Clr	Sash	QM	Wood	Brown	Interior	Innovar, 2011
11	17 0		mg/cm2		3	Railyards Amtrack Office	Office	А	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
12	-0	.2	mg/cm2		3	Railyards Amtrack Office	Office	А	Wall	L Rgi		QM	Plaster	White	Interior	Innovar, 2011
13	-0	.2	mg/cm2		3	Railyards Amtrack Office	Office	D	Door	Rgi	U Rgt	QM	Steel	Brown	Interior	Innovar, 2011
14	20 0.1	1	mg/cm2		3	Railyards Amtrack Office	Office	D	Door	Rgt	LIt casing	QM	Steel	Brown	Interior	Innovar, 2011
15	21 0.	7	mg/cm2		4	Railyards Amtrack Office	Break Rm	В	Chair rail	Clr		QM	Wood	Brown	Interior	Innovar, 2011
16	22 0.3	2	mg/cm2		4	Railyards Amtrack Office	Break Rm	В	Window	Ctr	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
17	23 >9	9.9	mg/cm2	Yes	4	Railyards Amtrack Office	Break Rm	В	Wall	L Ctr		QM	Plaster	Whiie	Interior	Innovar, 2011
18	24 0.3	2	mg/cm2		4	Railyards Amtrack Office	Break Rm	С	Baseboard	Clr		QM	Plaster	White	Interior	Innovar, 2011
19		9.9	mg/cm2	Yes	4	Railyards Amtrack Office	Break Rm	В	Wall	U Lft			Plaster	White	Interior	Innovar, 2011
20	26 >9	9.9	mg/cm2	Yes	4	Railyards Amtrack Office	Break Rm	В	Wall	L Rgt		QM	Plaster	White	Interior	Innovar, 2011
21	27 0.3	3	mg/cm2		4	Railyards Amtrack Office	Break Rm	С	Wall	L Clr		QM	Drywall	White	Interior	Innovar, 2011
22	28 0.3	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
23	29 >9	9.9	mg/cm2	Yes			Lobby	А	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
24	30 0.3	3	mg/cm2		10	Railyards Amtrack Office	Lobby	D	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
25		3	mg/cm2			Railyards Amtrack Office	Lobby	А	Window	Ctr	Sash		Wood	Brown	Interior	Innovar, 2011
26		9.9	mg/cm2	Yes	10		Lobby	А	Column	Ctr			Plaster	White	Interior	Innovar, 2011
27	33 >9	9.9	mg/cm2				Lobby	А	Column	Clr		QM	Plaster	White	Interior	Innovar, 2011
28	34 1.3	1	mg/cm2	Yes			Hallway	В	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
29	35 >9	9.9	mg/cm2	Yes	12	Railyards Amtrack Office	Hallway	D	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
30		_	mg/cm2					D	Wall	L Ctr					Interior	Innovar, 2011
31			mg/cm2			1	WmnsRm	A	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
32			mg/cm2				WmnsRm	В	Door	Ctr	_		Wood		Interior	Innovar, 2011
33			mg/cm2			1		В	Floor				Cement	Brown	Interior	Innovar, 2011
34			mg/cm2	-			Number Only	С	Stairs	Ctr				Black	Interior	Innovar, 2011
35			mg/cm2				Number Only	С	Stairs	Ctr			Steel	Black	Interior	Innovar, 2011
36			mg/cm2				Upstairs	С	Wall	L Clr			Plaster	White	Interior	Innovar, 2011
37			mg/cm2			,	Upstairs	В	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
38			mg/cm2				Upstairs	A	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
39			mg/cm2				Upstairs	A	Door				Wood	White	Interior	Innovar, 2011
40			mg/cm2	_			Upstairs	В	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
41			mg/cm2			•	Upstairs	А	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
42			mg/cm2	-			Museum	A	Floor				Cement	Gray	Interior	Innovar, 2011
43			mg/cm2	Yes			Museum	А	Floor				Cement	White	Interior	Innovar, 2011
44			mg/cm2			,	Museum	А	Floor				Cement	White	Interior	Innovar, 2011
45			mg/cm2				Museum	D	Wall	L Ctr			Cement	Gray	Interior	Innovar, 2011
46	58 0.2	2	mg/cm2		16	Railyards Amtrack Office	Museum	В	Wall	L Ctr		QM	Cement	Gray	Interior	Innovar, 2011

ID Read No/Sample ID	Lead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
47 59	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Wall	L Ctr		QМ	Cement	Gray	Interior	Innovar, 2011
48 60	6.3		Yes		Railyards Amtrack Office	Museum	А	Floor			QM	Cement	Yellow	Interior	Innovar, 2011
49 61	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	U Ctr	QМ	Steel	Green	Interior	Innovar, 2011
50 62	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	U Ctr	QМ	Steel	Black	Interior	Innovar, 2011
51 63	0.5	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	Lft casing	QM	Steel	Black	Interior	Innovar, 2011
52 64	0.7	mg/cm2		16	Railyards Amtrack Office	Museum	А	Floor			QM	Cement	Red	Interior	Innovar, 2011
53 65	1.8		Yes	1	Railyards Amtrack Office	Facility	В	Railing	Ctr	Railing	QМ	Steel	Yellow	Exterior	Innovar, 2011
54 66	0.2	mg/cm2		1	Railyards Amtrack Office	Facility	В	Door	Ctr	U Ctr	QМ	Steel	Red	Exterior	Innovar, 2011
55 67	-0.1	mg/cm2		1	Railyards Amtrack Office	Facility	D	Window	Ctr	Sill	QM	Wood	Black	Exterior	Innovar, 2011
56 68	0.2	mg/cm2		1	Railyards Amtrack Office	Facility	D	Window	Ctr	Sash	QM	Wood	Black	Exterior	Innovar, 2011
57 69	0	mg/cm2		1	Railyards Amtrack Office	Facility	С	Window	Rgt	Sill	QM	Wood	Black	Exterior	Innovar, 2011
58 7	5	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
59 8	1.1	mg/cm2	Yes	1	Main Machine Shop	Number Only	С	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
60 9	2.2	mg/cm2	Yes	1	Main Machine Shop	Number Only	С	Column	Clr		QM	Sleel	Silver	Interior	Innovar, 2011
61 10	0.1	mg/cm2		1	Main Machine Shop	Number Only	А	Floor			QM	Ceramic	Red	Interior	Innovar, 2011
62 11	1.8	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
63 12	0.7	mg/cm2		1	Main Machine Shop	Number Only	В	Stairs	Ctr	Treads	QM	Steel	Green	Interior	Innovar, 2011
64 13	1.9	mg/cm2	Yes	1	Main Machine Shop	Number Only	D	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
65 14	5.4	mg/cm2	Yes	1	Main Machine Shop	Number Only	D	Ceiling Beam	Beam	Ctr	QM	Steel	Silver	Interior	Innovar, 2011
66 15	4.2	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Column	Ctr		QM	Steel	Black	Exterior	Innovar, 2011
67 16	2.7	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Stairs	Ctr	Treads	QM	Wood	White	Interior	Innovar, 2011
68 1	3.4	mg/cm2	Yes		Boiler Shop	Number Only	В	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
69 2	0.1	mg/cm2			Boiler Shop	Number Only	А	Floor			QM	Cement	Red	Interior	Innovar, 2011
70 3	3.2	mg/cm2	Yes		Boiler Shop	Number Only	С	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
71 4	2.5	mg/cm2	Yes		Boiler Shop	Number Only	А	Column	Lft		QM	Steel	Silver	Interior	Innovar, 2011
72 5	-0.3	mg/cm2			Boiler Shop	Number Only	С	Door	Lft	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
73 1	1.1	mg/cm2	Yes		Blacksmith Shop	Number Only	В	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
74 2	3.1	mg/cm2	Yes		Blacksmith Shop	Number Only	С	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
75 3	2.1	mg/cm2	Yes		Blacksmith Shop	Number Only	D	Wall	L Ctr		QM	Brick	Silver	Interior	Innovar, 2011
76 4	0.2	mg/cm2			Blacksmith Shop	Number Only	D	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
77 5	0.1	mg/cm2			Blacksmith Shop	Number Only	D	Window	Ctr	Part. Bead	QM	Steel	Silver	Interior	Innovar, 2011
78 7	2.7	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Bldg North of Firehouse	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
79 8	2.3	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Window	Ctr	Lft casing	QM	Steel	Silver	Interior	Innovar, 2011
80 9	5.6	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
81 10	1.1	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Window	Ctr	Rgt casin	QM	Steel	Silver	Interior	Innovar, 2011
82 11	2.4	mg/cm2	Yes		Bldg North of Firehouse	Number Only	С	Frame	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
83 12	1.1	mg/cm2	Yes		Bldg North of Firehouse	Number Only	С	Wall	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
84 13	0.2	mg/cm2			Bldg North of Firehouse	Number Only	D	Wall	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
85 1	1.1	mg/cm2	Yes		Bldg South of Firehouse	Number Only	А	Wall	L Ctr		QM	Cement	White	Interior	Innovar, 2011
86 2	0.1	mg/cm2			Bldg South of Firehouse	Number Only	В	Wall	L Ctr		QM	Cement	White	Interior	Innovar, 2011
87 3	0	mg/cm2			Bldg South of Firehouse	Number Only	A	Door Cnt	Ctr	Lft casing	QM	Cement	White	Interior	Innovar, 2011
88 4	1.1	mg/cm2	Yes		Bldg South of Firehouse	Number Only	A	Column	Ctr		QM	Cement	Green	Interior	Innovar, 2011
89 5	1.2	mg/cm2	Yes		Bldg South of Firehouse	Number Only	В	Wall	L Ctr		QM	Cement	Green	Interior	Innovar, 2011
90 6	0.5	mg/cm2			Bldg South of Firehouse	Number Only	С	Door	Ctr	U Ctr	QM	Cement	Green	Interior	Innovar, 2011
91 13029.029-020513-01L	150	ppm			Blacksmith Shop			Interior Walls	NW Corner			Paint	Silver		Rhoades, 2013
92 13029.029-020513-02L	410	ppm			Blacksmith Shop			Interior Walls	NE Corner			Paint	Silver		Rhoades, 2013

ID	Read No/Sample ID	Lead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
93	13029.029-020513-03L	100	ppm			Blacksmith Shop			Interior Walls	SW Corner			Paint	Silver		Rhoades, 2013
94	13029.029-020513-04L	150	ppm			Blacksmith Shop			Interior Walls	SE Corner			Paint	Silver		Rhoades, 2013
95	13029.029-020513-05L	2570	ppm			Blacksmith Shop			Overhead Piping				Paint	Red		Rhoades, 2013
96	13029.029-020513-06L	2640	ppm			Blacksmith Shop			Exterior Brick Walls		Trim		Paint	Rust		Rhoades, 2013
97	13029.029-020513-07L	4040	ppm			Blacksmith Shop			Interior Walls Office Shack				Paint	Cream		Rhoades, 2013
98	13029.029-020513-08L	250	ppm			Blacksmith Shop			Building	NW Corner			Surface Dust			Rhoades, 2013
99	13029.029-020513-09L	400	ppm			Blacksmith Shop			Building	NE Corner			Surface Dust			Rhoades, 2013
100	13029.029-020513-10L	100	ppm			Blacksmith Shop			Building	Center			Surface Dust			Rhoades, 2013
101	13029.029-020513-11L	710	ppm			Blacksmith Shop			Building	SW Corner			Surface Dust			Rhoades, 2013
102	13029.029-020513-12L	970	ppm			Blacksmith Shop			Building	SE Corner			Surface Dust			Rhoades, 2013

			Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
2 5	577007-NB.NS.1	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
10	577007-NB.NS.2	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
3 5	577007-NB.NS.3	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
4 5	577007-NB.SS.4	Sep-05	Green painted window pane	Boiler Shop, South Side	0%			Terracon, 2005
5 5	577007-NB.SS.5	Sep-05	Green painted window pane	Boiler Shop, South Side	0%			Terracon, 2005
6 5	577007-NB.SS.6	Sep-05	Green painted window pane	Boiler Shop, North Side	0%			Terracon, 2005
7 5	577007-NB.NS.7	Sep-05	Silver glaze coating window pane	Boiler Shop, North Side	0%			Terracon, 2005
8 5	577007-NB.NS.8	Sep-05	Silver glaze coating window pane	Boiler Shop, North Side	0%			Terracon, 2005
9 5	577707-NB.NS.9	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
10 5	577007 -NB.NS.10	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
11 5	577007-NB.NS.11	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
12 5	577007-SB.SS.F1.1	Sep-05	Silver glaze coating window pane	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
13 5	577007 -SB.SS.F1.2	Sep-05	Glaze coating on window pane (silverlblack)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
14 5	577007-SB.SS.F1.3	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
15 5	577007 -SB.SS.F1.4	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
16 5	577007 -SB.SS.F1.5	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
17 5	577007-SB.SS.F1.6	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
18 5	577007 -SB.SS.F1.7	Sep-05	Glaze coating on window pane (silver/green)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
19 5	577007-SB.SS.F2.1	Sep-05	Glaze coating on window pane (beige/green)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
20 5	577007-SB.SS.F2.2	Sep-05	Glaze coating on window pane (tanJbrown)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
21 5	577007-SB.SS.F2.3		Glaze coating on window pane (off-white)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
22 5	577007-SB.SS.F2.4		Glaze coating on window pane (grey/green)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
23 5	577007-SB.SS.F2.5		Glaze coating on window pane (off-white)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
24 5	577007-SB.SS.F2.6		Plaster over cc wall (grey with paint)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
25 5	577007-SB.SS.F2.7		Plaster over cc wall (grey with paint)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
	577007-NB.SS.1		Window glazing (tan)	Boiler Shops, South Side	Trace <1%			Terracon, 2005
27 5	577007-NB.SS.2	Sep-05	Window glazing (tan)	Boiler Shops, South Side	2%	Chrysotile	Non-Friable	Terracon, 2005
28 5	577007-NB.SS.3		Window glazing (tan)	Boiler Shops, South Side	2%	Chrysotile	Non-Friable	Terracon, 2005
29 5	577007-NB.SS.01	Sep-05	Window glazing (beige)	Boiler Shops, South Side	Trace <1%	Chrysotile		Terracon, 2005
30 5	577007-NB.SS.02		Window glazing (beige)	Boiler Shops, South Side	Trace <1%	,		Terracon, 2005
31 5	577007-NB.SS.03		Window glazing (beige)	Boiler Shops, South Side	Trace <1%	Chrysotile		Terracon, 2005
32 5	577007 -NB.ES.01		Window glazing (beige)	Boiler Shops, East Side	Trace <1%	, Chrvsotile		Terracon, 2005
	577007-NB.ES.02		Window glazing (beige)	Boiler Shops, East Side		Chrysotile		Terracon, 2005
34 5	577007 -N.O.01		Outside shingle (red with granules)	Outside the Boiler Shop	0%	,		Terracon, 2005
35 5	577007-N.O.02		Outside shingle (red with granules)	Outside the Boiler Shop	0%			Terracon, 2005
_	577007-N.O.03		Outside shingle (red with granules)	Outside the Boiler Shop	0%			Terracon, 2005
37 5	577007-N.O.G.01		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
38 5	577007-N.O.G.02		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
_	577007-N.O.G.03		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
	577007 -NTE. WS-1		Transite pipe (grey)	Former Transformer Area, West Side		Chrysotile	Friable	Terracon, 2005
_	577007 -NTE. WS-1		Transite pipe (grey)	Former Transformer Area, West Side		Crocidolite		Terracon, 2005
42 5	577007 -NTE.ES-3		Transite pipe (grey)	Former Transformer Area		Chrysotile	Friable	Terracon, 2005
43 5	577007 -NTE.ES-3		Transite pipe (grey)	Former Transformer Area	5%	Crocidolite		Terracon, 2005
44 5	577007-NTE.ES-1 (577007-NTE.NS-1??)		Transite pipe (grey)	Former Transformer Area	25%	Chrysotile	Friable	Terracon, 2005
45 5	577007-NTE.ES-1 (577007-NTE.NS-1??)		Transite pipe (grey)	Former Transformer Area		Crocidolite		Terracon, 2005
	577007-SWB.WW.01		Window putty/glazing (beige)	Babbit Shop, West Wall	Trace <1%			Terracon, 2005
	577007-SWB.WW.02		Window putty/glazing (beige)	Babbit Shop, West Wall	Trace <1%	,		Terracon, 2005
_	577007-FH.01		Insulation/plaster over brick	Fire House	0%			Terracon, 2005
_	577007-FH.02		Insulation/plaster over brick	Fire House	0%			Terracon, 2005
	577007-FH.03		Insulation/plaster over brick	Fire House		Chrysotile	Friable	Terracon, 2005
	577007-FH.04		Insulation/plaster over brick	Fire House		Chrysotile	Friable	Terracon, 2005
	01-DW1-1		off-white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011
	01-DW1-2	•	white drywall with brown paper (drywall)	Amtrack Office	none detected			Innovar, 2011
_	02-DW1-1	•	white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011

ID	Sample Number Date	Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
55 03-DW1-	-1 Aug-	10 white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011
56 04-P1-1	Aug-	10 white surfaced tan plaster (plaster)	Amtrack Office	none detected			Innovar, 2011
57 05-P1-1	Aug-	10 white surfaced tan plaster (plaster)	Amtrack Office	none detected			Innovar, 2011
58 06-P1-1	Aug-	10 white surfaced white compound (plaster)	Amtrack Office	none detected			Innovar, 2011
59 06-P1-2	Aug-	10 tan plaster (plaster)	Amtrack Office	none detected			Innovar, 2011
60 07-CB1-1	1 Aug-	10 pink cover base (cover base)	Amtrack Office	none detected			Innovar, 2011
61 07-CB1-2	2 Aug-	10 tan mastic (cover base)	Amtrack Office	none detected			Innovar, 2011
62 07-CB1-3	3 Aug-	10 white surfaced white compound (cover base)	Amtrack Office	none detected			Innovar, 2011
63 07-CB1-4	4 Aug-	10 brown mastic (cover base)	Amtrack Office	<1%	Anthophyllite		Innovar, 2011
64 07-CB1-5	5 Aug-	10 tan plaster (cover base)	Amtrack Office	none detected			Innovar, 2011
65 08-CB1-1	1 Aug-	10 pink cover base (cover base)	Amtrack Office	none detected			Innovar, 2011
66 08-CB1-2	2 Aug-	10 tan mastic (cover base)	Amtrack Office	none detected			Innovar, 2011
67 08-CB1-3	3 Aug-	10 brown mastic (cover base)	Amtrack Office	<1%	Anthophyllite		Innovar, 2011
68 08-CB1-4	4 Aug-	10 tan plaster (cover base)	Amtrack Office	none detected			Innovar, 2011
69 09-CB1-1		10 pink cover base (cover base)	Amtrack Office	none detected			Innovar, 2011
70 09-CB1-2	2 Aug-	10 tan mastic (cover base)	Amtrack Office	none detected			Innovar, 2011
71 09-CB1-3	3 Aug-	10 brown mastic (cover base)	Amtrack Office	<1%	Anthophyllite		Innovar, 2011
72 09-CB1-4	4 Aug-	10 tan plaster (cover base)	Amtrack Office	none detected			Innovar, 2011
73 10-CT1-1	L Aug-	10 white surfacing (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
74 10-CT1-2		10 tan ceiling (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
75 10-CT1-3	3 Aug-	10 brown mastic (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
76 11-CT1-1	L Aug-	10 white surfacing (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
77 11-CT1-2		10 tan ceiling tile (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
78 11-CT1-3		10 brown mastic (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
79 12-CT1-1	L Aug-	10 tan ceilign tile (no surfacing) (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
80 12-CT1-2		10 brown mastic (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
81 13-WC1-	-1 Aug-	10 black surfacing white caulking (Window Caulk)	Amtrack Office	none detected			Innovar, 2011
82 14-WC1-	-1 Aug-	10 black surfacing white caulking (Window Caulk)	Amtrack Office	none detected			Innovar, 2011
83 15-WC1-	-1 Aug-	10 black surfacing white caulking (Window Caulk)	Museum	none detected			Innovar, 2011
84 16-CT2-1		10 white surfacing (ceiling tile)	Museum	none detected			Innovar, 2011
85 16-CT2-2		10 Gray ceiling tile (ceiling tile)	Museum	none detected			Innovar, 2011
86 17-CT2-1		10 White Surfacing (ceiling tile)	Museum	none detected			Innovar, 2011
87 17-CT2-2		10 Gray ceiling tile (ceiling tile)	Museum	none detected			Innovar, 2011
88 18-CT2-1		10 white surfacing (ceiling tile)	Museum	none detected			Innovar, 2011
89 18-CT2-2		10 Gray ceiling tile (ceiling tile)	Museum	none detected			Innovar, 2011
90 19-W1-1		10 black woven covering (Wiring)	Museum	none detected			Innovar, 2011
91 20-W1-1	Aug	10 black woven covering (Wiring)	Museum	none detected			Innovar, 2011
92 13029.02	29-020513-01 Feb-	13 12" Spline Ceiling Tile	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
93 13029.02		13 12" Spline Ceiling Tile	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
94 13029.02		13 12" Spline Ceiling Tile	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
95 13029.02	29·020513-04 Feb-	13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
96 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop		Chrysotile	Poor/Friable	Roades, 2013
97 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop			Poor/Friable	Roades, 2013
98 13029.02	29-020513-07 Feb-	13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
99 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
100 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
101 13029.02		13 Window Glazing	Reinforced Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
		13 Window Glazing	Reinforced Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
103 13029.02		13 Window Glazing	Reinforced Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
104 13029.02		13 Window Glazing	Clear Glass, Blacksmith Shop		Chrysotile	Poor/Friable	Roades, 2013
105 13029.02		13 Window Glazing	Clear Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
		13 Window Glazing	Clear Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
107 13029.02		13 Window Glazing	Wood Panes, Blacksmith Shop		Chrysotile	Poor/Friable	Roades, 2013
108 13029.02		13 Window Glazing	Wood Panes, Blacksmith Shop		,	Poor/Friable	Roades, 2013
100 10020.02	160-	TO THIS OF ORE IN THE	nosa i unes, blueksmith shop	2/0	10.11 930 010		

ID	Sample Number	Date	Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
109	13029.029-020513-18	Feb-13	Window Glazing	Wood Panes, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
110	13029.029-020513-19	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
111	13029.029-020513-20	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
112	13029.029.020513-21	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
113	13029.029-020513-22	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
114	13029.029.020513-23	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
115	13029.029-020513-24	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
116	13029.029.020513-25	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
117	13029.029.020513-26	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
118	13029.029-020513-27	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
119	13029.029-020513-28	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
120	13029.029-020513-29	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
121	13029.029-020513-30	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
122	13029.029-020513-31	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	8%	Chrysotile	Poor/Non-Friable	Roades, 2013
123	13029.029-020513-32	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
124	13029.029-020513-33	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
125	13029.029-020513-34	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
126	13029.029-020513-35	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
127	13029.029-020513-36	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
128	13029.029-020513-34a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
129	13029.029-020513-35a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
130	13029.029-020513-36a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
131	13029.029-020513-37	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	2%	Chrysotile	Poor/Friable	Roades, 2013
132	13029.029-020513-38	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	3%	Chrysotile	Poor/Friable	Roades, 2013
133	13029.029-020513-39	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	3%	Chrysotile	Poor/Friable	Roades, 2013

# Appendix D Lead Based Paint Laboratory Analysis





Client: DC Environmental PO Box 9315 Albuquerque , NM 87119

CEI Lab Code: C16-0814 Received: 11-14-16 Analyzed: 11-18-16 Reported: 11-18-16

Project: Rail Yard Parcel 8 Tender Repair; DCE 16-180

# ANALYSIS METHOD: EPA SW846 7000B

CLIENT ID	CEI LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
16-180-1000	CA58045	220	0.022
16-180-1001	CA58046	9100	0.91
16-180-1002	CA58047	11000	1.1
16-180-1003	CA58048	34000	3.4
16-180-1004	CA58049	1700	0.17
16-180-1005	CA58050	8400	0.84
16-180-1006	CA58051	2500	0.25
16-180-1007	CA58052	1700	0.17
16-180-1008	CA58053	7400	0.74
16-180-1009	CA58054	19000	1.9

Lab Code: C16-0814

#### ANALYSIS METHOD: EPA SW846 7000B

CLIENT ID	CEI LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
Reviewed By:	Tianbao Bai, Ph.D. Laboratory Director		

This method has been validated for sample weights of 0.020g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations. \* The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.

Minimum reporting limit is 10 µg total lead. Sample results denoted with a "less than" (<) sign contain less than 10.0 µg total lead, based on a 40ml sample volume.

Lead samples are not analyzed by CEI Labs Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.

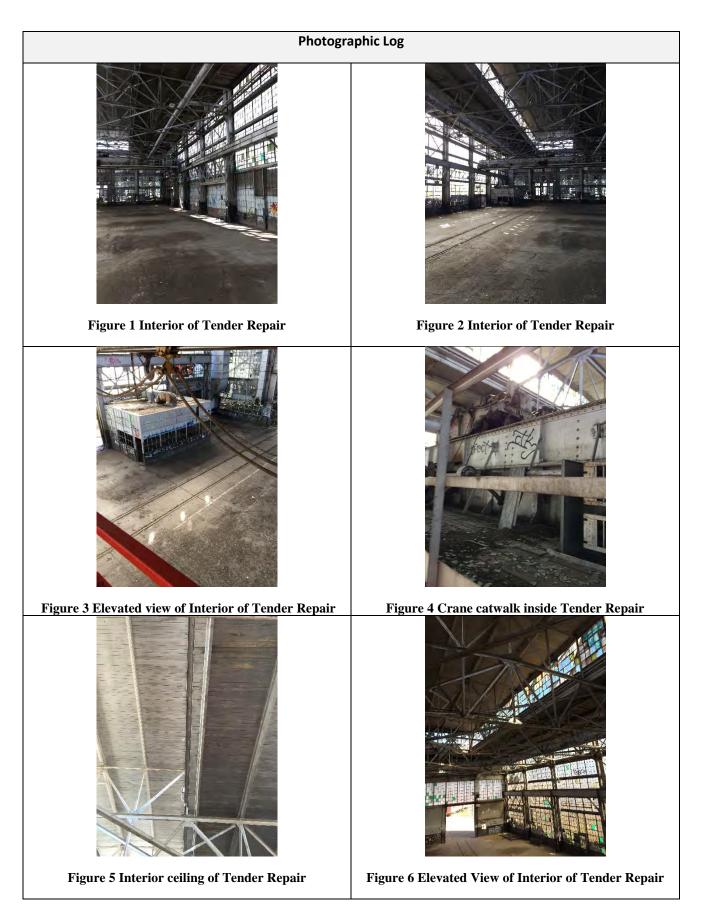
Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, CEI Labs discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of CEI Labs.

REGULATORY LIMITS	OSHA Standard: No safe limit. Consumer Products Safety Standard: Greater than 0.06% lead by weight. Federal Lead Standard / HUD: 0.5% lead by weight.							
LEGEND	µg = microgram ml = milliliter	ppm = parts per million Pb = lead	g = grams wt = weight					
			E	End of Report				

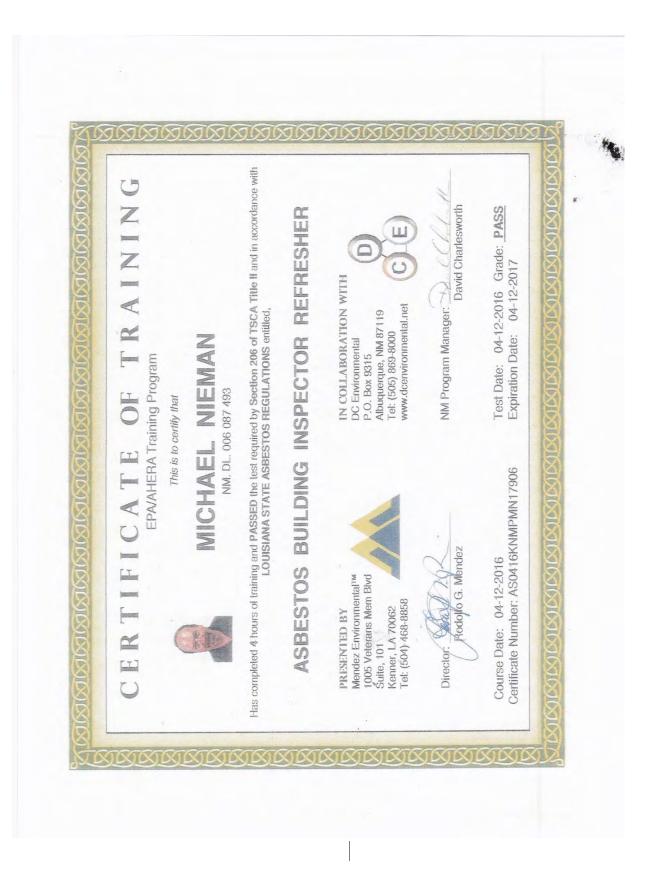
016-0814 10

					CASBO	45-(	CAS80	54		
0	PO / Job#: DCE 16-180         Date: 10/28/2016           Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day									
D DC Environmental										
CLE Consulting and Train	PCM: NIOSH 7400A / NIOSH 7400B Rotometer									
	g Safety in the	Workplace"								
DC Environmental PO Box 9315 Albuquerque, NM 87119			PLM:  Stand	lard / 🗖	Point Count 40	0 - 1000 /	CARB 4	35		
Contact: J. David Charlesworth							Constraint and a second			
Phone: 505.869.8000	869.9453	□ TEM Bulk:       □ Quantitative / □ Qualitative / □ Chatfield         □ TEM Water:       □ Potable / □ Non-Potable / □ Weight %         □ TEM Microvac:       □ Qual(+/-) / □ D5755(str/area) / □ D5756(str/mass)								
E-mail: IDCharlesworthcih@gmail.co		□ IAQ Particle Identification (PLM LAB) □ PLM Opaques/Soot								
Site: City of Albuquerque (In			Particle Identification (TEM LAB)     Special Project     Metals Analysis: Method:							
			Matrix:							
Site Location: Rail Yard Parc	Cepair	Analytes:								
Comments: 'Paint chips to be	analyzed for	Lead Based Paint						_		
	1	1		L.						
Sample ID	Data	Sample Location / Descr	iption / Task		FOR AIR SAMPLES ONLY Samp			Area /		
Sample ID	Date			Туре	Time On/Off	Avg. LPM	Total Time	Air		
16-180-1000	10/28	Red Floor Paint from Tender Repair		A P C		LIM	Thic	Volum		
16-180-1001	10/28	White Floor Paint from Tender Repair		A P C			-			
16-180-1002	10/28	Black Paint from Wall in Tender Rep		A P C						
16-1180-1003	10/28	Black Paint from Colur Repair	nn in Tender	A P C						
16-180-1004	10/28	Beige Paint from Wo Tender Rep		A P C						
16-1180-1005	10/28	Black Concrete Wall Pair Repair	nt from Tender	A P C			i ă			
16-180-1006	10/28	Silver Paint from Metal boiler room from Ten		A P C						
16-180-1007	10/28	Black Paint from concre Tender Repa		A P C						
16-180-1008	10/28	White Paint from Win	dow Glass	A P C						
16-180-1009	10/28	Red wood trim exterior o	of boiler room	P C						
Sampled By: Steven Gutierre:	z									
Shipped Via: 🗆 Fed Ex 🛛 🗖	DHL DU	PS 🗆 US Mail 🗖 Courie	r 🗖 Drop Off	□ Other	r:					
Relinquished By: Steven Gutierre Date / Time: 11/11/2016 5:00PM	Relinquished By: Date / Time:			Relinquished By: Date / Time:						
Received By: AC		Received By:			Received By:					
Date / Time: 11/14/16	9:10	Date / Time:	ate / Time:			Date / Time:				
Condition Acceptable? Yes	🗆 No	Condition Acceptable?	Yes 🗖 No		Condition Acce	eptable?	J Yes 🗆	No		

Appendix E Photography Log

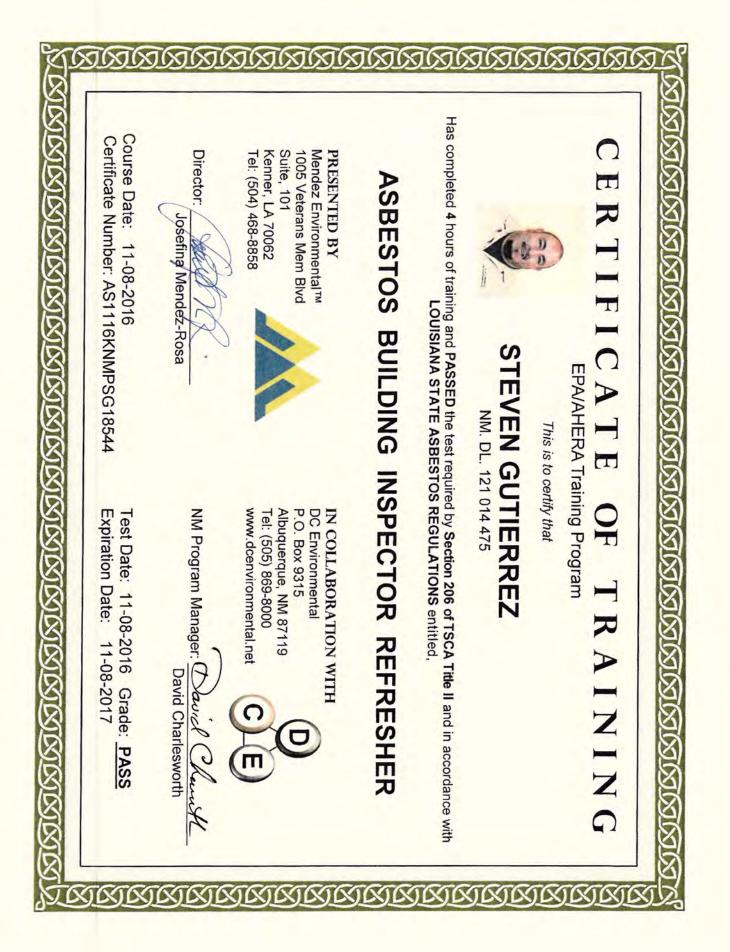


Appendix F Certificates



States Emironnental Protection Agency This is to certify that	Aichael Neiman has fuffiled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as: Inspector Inspector Inspector Inspector	This certification is valid from the date of issuance and expires September 25, 2017
United S		NM-I-129246-1 Certification # September 11, 2014 Issued On

LBP-I-I159998-1 Certification # April 06, 2016 Issued On	All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories This certification is valid from the date of issuance and expires April 20, 2019	In the Invision	Inspector	has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:	Steven P Gutierrez	This is to certify that	United States Environmental Protection Agency
Adrienne Priselac, Manager, Toxics Office Land Division	am States, Tribes and Territories April 20, 2019	inn of:	WA	trol Act (TSCA) Section 402, and has pursuant to 40 CFR Part 745.226 as:		y that	l Protection Agency





DC Environmental Consulting and Training Services

## ASBESTOS AND LEAD BASED PAINT SURVEY City of Albuquerque Railyard Flue Shop Parcel 8 Albuquerque, NM

## PREPARED FOR:

Intera, Inc. 6000 Uptown Blvd, Suite 220 Albuquerque, New Mexico, 87110



### **PREPARED BY:**

DC Environmental PO Box 9315 Albuquerque, New Mexico 87119

> November 9, 2016 Project No. 16-178

DC Environmental PO BOX 9315 Albuquerque, NM 87119 tel: 505.869.8000 fax 505.869. 9453



November 9, 2016 Project No. 16-178

Mr. Joe Tracy Intera Inc. 6000 Uptown Boulevard, NE Suite 200 Albuquerque, NM 87110

## Subject: Asbestos and Lead Based Paint inspection of the Flue Shop Parcel 8 – City of Albuquerque Railyard

Dear Mr. Joe Tracy;

In accordance with our proposal, DC Environmental has performed asbestos and lead based paint inspections of the above-referenced facility, located at the City of Albuquerque Railyard, 1100 2nd St SW, Albuquerque, New Mexico. The attached report presents our methodology, findings, opinions, and recommendations regarding the survey.

Lead Containing materials were identified at the Flue Shop. Asbestos-containing materials were identified at the Flue Shop.

We appreciate the opportunity to be of service to you on this project. Should you have any questions regarding this report, please contact the undersigned at your convenience.

Sincerely, ACME ENVIRONMENTAL INDUSTRIAL HYGIENE, INC. dba DC Environmental

J. David Charlesworth, CIH

Karen Dremann, BS Senior Scientist

Distribution: (2) Addressee

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Table 1. Asbestos Lab Results Table 2. Lead Based Paint Laboratory Analysis

#### **Appendices**

Appendix A. Asbestos Laboratory Analysis Results Appendix B. XRF Lead Measurements Table Appendix C Lead and Asbestos Data Appendix D. Photographic Log Appendix E. Certifications

#### **EXECUTIVE SUMMARY**

On October 26, 2016, DC Environmental performed an inspection of the Flue Shop located at the City of Albuquerque Railyard on 2<sup>nd</sup> street in Albuquerque, New Mexico. The inspection was conducted in a response to a request to identify materials which may be impacted during future renovation or demolition activities. Previous sampling and analysis of building materials for lead had been conducted at the property by Innovar in 2011 and Rhoades in 2013. Previous sampling for asbestos had been conducted by Terracon in 2005, Innovar in 2011 and Rhoades in 2013 (See Appendix C). The previous survey did not have asbestos containing building materials or lead based paint results. The focus of our inspection was to determine the presence, location and quantity of asbestos remaining within the facility, and to establish the basis for the presence of lead containing finishes within the structure. The space is being evaluated for a confidential client and the concern is that existing materials may contain asbestos and lead in the finishes.

The inspection design was to conduct a room-by-room investigation for asbestos-containing building materials. Access the functional spaces, where appropriate; evaluate the exterior surfaces; and sample materials suspect for asbestos within the Flue Shop.

Asbestos-containing building materials are those containing greater than one percent asbestos as determined by polarized light microscopy. Asbestos was detected in any of the building materials sampled.

Lead-based paint is defined as coatings containing surface area lead of 1.0 milligrams per square centimeter (1.0 mg/cm<sup>2</sup>) when evaluated by X-Ray Fluorescence. Lead based paint is further defined if laboratory analysis determines the lead content to be one half (0.5 %) percent by weight or greater. The lead inspection of the facility was conducted using an X-Ray Fluorescence (XRF) handheld instrument of select components or areas. The inspector did identify painted surfaces with excess lead above the stated regulatory limit.

<u>Lead-containing</u> materials are those with detectable levels of lead in the materials however not at levels above 1.0 mg/cm2. Lead containing materials **were** identified at the Flue Shop (see Appendix B XRF Lead Measurements and Appendix D. Lead Based Paint Laboratory Analysis). Individuals bidding for work should be aware of the presence of lead when performing demolition and renovation activities involving these items

#### 1. INTRODUCTION

In accordance with our proposal, DC Environmental has performed an investigation of the Flue Shop located at the City of Albuquerque Railyard in Albuquerque, New Mexico.

The inspection was conducted in a response to a request to have building materials evaluated for future renovation or demolition activities. The focus of our inspection was to determine the presence, location and quantity of asbestos and lead based paint present within the facility. The building is being inspected for a confidential client and the concern is that existing materials may contain asbestos in building materials and lead in the painted finishes.

This report has been prepared in accordance with generally accepted environmental science and

engineering practices. This report is based upon conditions at the subject building at the time of the sampling activities and provides documentation of our findings and recommendations.

#### 2. PURPOSE AND SCOPE OF SERVICES

The inspection design was to conduct a room-by-room investigation and assess the facility for the presence of asbestos-containing building materials, and lead-based paint.

The objective of this inspection was to perform the requisite sampling and present the findings along with any recommendations. The services performed by DC Environmental are outlined below.

- A reconnaissance of the area was conducted by Mr. David Charlesworth, Mr. Michael Neiman, and Mr. Steven Gutierrez all accredited Asbestos Building Inspectors, and a Certified Lead Assessor and Inspectors.
- Sampling was conducted using several different types of inspection tools and laboratory techniques including Polarized Light Microscopy and X-Ray Fluorescence.
- Report preparation summarizing our sampling methods and laboratory analysis are included. This report further details our conclusions and recommendations for the project.

#### 3. SITE DESCRIPTION

The subject site consists of one structure, the Flue Blacksmith Shop.

#### The Flue Shop

The Flue Shop consists of a single building, roof and exterior. The Flue hop is a concrete frame and concrete siding construction. Roofing appeared to be gravel and tar over felt paper on top of concrete.

#### 4. ACTIVITIES

DC Environmental conducted a lead-based paint investigation and asbestos-containing building materials inspection on October 26, 2016 of the Flue Shop. Analysis of the Interior and exterior painted surfaces incorporated the use of an X-Ray Fluorescence Device. The Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence device was used to measure the lead content of surface coatings on representative homogenous components. Multiple XRF readings were recorded.

The site sampling activities are described below.

#### 4.1. Asbestos-Containing Building Materials

Mr. David Charlesworth, Mr. Michael Nieman, and Mr. Steven Gutierrez conducted a visual inspection for asbestos-containing building materials at the above referenced building. Mr. Nieman collected a total of twenty two (22) samples that were tested for asbestos using Polarized Light Microscopy and stereomicroscopy bulk asbestos analysis. Analysis was conducted by Crisp Analytical, LLC of Carrollton, Texas. Crisp Analytical is an accredited laboratory and recognized by the National Voluntary Laboratory Accreditation Program. Based upon the samples tested, **three** of the materials sampled were identified as asbestos-containing material.

- Tan sealant, window putty
- Black mastic used as building seam sealer
- Tan surfaced black and brown cork insulation on piping

The Environmental Protection Agency has established terminology regarding asbestos and specifically asbestos-containing building materials. Material which is friable are those materials which can be crushed, crumbled or reduced to powder by hand pressure. Non-friable materials are further characterized as Category I Non-Friable or Category II Non-Friable. Category I Non Friable includes four specific items: Packings, Gaskets, Resilient Flooring and Asphalt Roofing. Category II Non-Friable is everything else which cannot be crumbled or pulverized by hand pressure. These items include materials of drywall systems, plasters, asbestos-containing cements (Transite <sup>®</sup>) and other materials declared non-friable by the asbestos inspector.

The EPA then clarifies that certain materials are Regulated Asbestos Containing Materials (RACM) and these include the following four designations:

- Friable materials;
- Category I Non-Friable Materials which have become friable;
- Category I Non-Friable Materials which have been subject to sanding, grinding, cutting and abrading; and
- Category II Non-friable materials which will be, or have been, subject to force during demolition or renovation.

Regulated Asbestos Containing Materials were **not** present within the structure.

#### 4.2. Lead Based Paint Inspection

The presence of lead based paint was assessed in substantial compliance with the Housing and Urban Development guidelines. DC Environmental conducted a lead-based surface coating screening survey of the interior and exterior of the property to generally identify building components coated with lead.

The survey consisted of testing the lead concentrations of each of the accessible surfaces.

To complete the survey, an X- Ray Fluorescence device was used to perform the lead based paint inspection. The Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence device is capable of detecting lead in lead-based paint. The determination of lead in paint is defined as a surface content of at least 1.0 milligrams per square centimeter. If the readings were between the 0.9 to 1.0 mg/cm<sup>2</sup> range, then the readings are declared as either lead-based paint or lead-containing materials and sampling is recommended.

Surfaces that were tested with the XRF device included, but were not limited to the following: doors, ceiling, painted walls, structural steel support, painted door components, roof components, ventilation duct, gates, and framing.

To determine the wall designations, the front entry off of the street or primary doorway is the A wall and interior in a clockwise direction are the B, C and D walls respectively. Exterior walls are

similar in the designations.

The XRF device recorded readings did indicate lead based paint in surfaces on the interior and exterior of architectural details and finishes. Please refer to the XRF readings in the appendix to this document.

#### 5. ANALYSES AND RESULTS

The results of samples and analysis are presented in the following tables. Copies of the laboratory analytical results are included in the appendix to this document.

		Asbestos
	Flue Shop	Type/calibrated/Visual
Sample #	Analyst physical description of subsample	estimate percent
16-178-100	Brown cork TSI from pipe in Flue Shop	ND
16-178-101	Brown cork TSI from pipe in Flue Shop	ND
16-178-102	• Brown cork TSI from pipe in Flue Shop	ND
16-178-103	• Brown cork TSI from pipe in Flue Shop	2% Chrysotile
16-178-104	Concrete Expansion Joint Flue Shop	ND
16-178-105	Concrete Expansion Joint Flue Shop	ND
16-178-106	Concrete Expansion Joint Flue Shop	ND
16-178-107	Building seam mastic Flue Shop	2% Chrysotile
16-178-108	Building seam mastic Flue Shop	2% Chrysotile
16-178-109	Building seam mastic Flue Shop	2% Chrysotile
16-178-110	Roofing Material Flue Shop	ND
16-178-111	Roofing Material Flue Shop	ND
16-178-112	Roofing Material Flue Shop	ND
16-178-113	Window putty Flue Shop	2% Chrysotile
16-178-114	Window putty Flue Shop	2% Chrysotile
16-178-115	Window putty Flue Shop	2% Chrysotile
16-178-116	Red Roofing Material Flue Shop New     addition	ND

#### 5.1. Table 1: Asbestos Sample Analysis

16-178-117	Red Roofing Material Flue Shop New     addition	ND
16-178-118	Red Roofing Material Flue Shop New     addition	ND
16-178-119	Flue shop floor paint stripe	ND
16-178-120	• Flue shop floor paint stripe	ND
16-178-121	• Flue shop floor paint stripe	ND

ND – None Detected

#### 5.2 Table 2 Lead Based Paint Chip Analysis

Sample #	Flue Shop Analyst physical description of subsample	Concentration % by Weight
16-178-1000	Gray Paint from Window sill in Flue Shop	0.13
16-178-1001	White Stripe from floor in Flue Shop	0.71

Lead based paint is further defined if laboratory analysis determines the lead content to be one half (0.5 %) percent by weight or greater.

#### 6. FINDINGS AND CONCLUSIONS

The findings of this inspection are based on our visual observations and analysis of the measurements collected from the facility. Our findings are presented below.

#### 6.1 Asbestos Sampling Analysis

The current visual inspection and sampling of building materials revealed three sources of asbestos-containing building materials. Asbestos-containing building materials were identified in the Flue Shop.

#### 6.2 Lead Based Paint Analysis

DC Environmental conducted a lead-based surface coating inspection of the interior and exterior of the property to generally identify building components coated with or containing lead. The survey consisted of testing the lead concentrations of over the majority of the interior and exterior surfaces.

During the survey, testing combinations in representative room equivalents were sampled by X-Ray Fluorescence (XRF) in substantial compliance with the XRF protocols established by EPA and presented as guidance in the Housing and Urban Development (HUD) publications. Performance of this survey is consistent and in substantial compliance with the documented methodologies identified by EPA and HUD. Based on the readings from the XRF devices materials at the Flue Shop were considered painted with Lead-based Paint (LBP).

Lead-Based Paint (LBP) is defined by HUD and the EPA as paint containing lead in amounts greater than or equal to 1.0 mg/cm<sup>2</sup> lead when analyzed by XRF or greater than 5000 parts per million or 0.5 percent by weight when analyzed by Flame Atomic Absorption.

There are materials in this building though, that are considered "lead-containing". Those materials are listed in Appendix B, XRF Lead Measurements. Contractors should follow the elements of the standard promulgated by the Occupational Safety and Health Administration. The Lead in Construction Standard 29 CFR 1926.62 applies to exposures to materials containing lead. Lead containing materials **were** identified at the Flue Shop (see Appendix B XRF Lead Measurements). Individuals bidding for work should be aware of the presence of lead when performing demolition and renovation activities involving these items.

#### 7. RECOMMENDATIONS

Based on our visual observations and the laboratory results, DC Environmental recommends the following:

The Lead-based Paint inspection **did** identify "lead-based paint" at the Flue Shop. Leadcontaining items **were** identified at the Flue Shop. Those material are listed in Appendix B, XRF Lead Measurements and Appendix D. Lead Based Paint Laboratory Analysis. These materials are regulated by OSHA in regards to those individuals which could be exposed during repair, renovation or demolition. It is recommended to have trained professionals in the OSHA Lead Construction standard handle the lead-based paint and lead-containing materials during disturbance of the material. At the conclusion of the construction activities we recommend a Lead Risk Assessment to include soil testing and settled dust be performed.

Select materials containing asbestos have been identified in the facility. Asbestos is present in the above identified materials. The materials containing asbestos will require abatement before substantial renovation or demolition can commence. The floor tiles are significantly damaged and are subject to the natural elements.

We appreciate the opportunity to provide sampling and inspection of this area. Should you have additional questions, or if conditions change substantially, please contact us at your earliest convenience.

Sincerely,

DC Environmental David Charlesworth Certified Industrial Hygienist

#### LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities.

The environmental interpretations and opinions contained in this report are based on the results of instrumentation, laboratory tests and/or analyses Acme Environmental Industrial Hygiene, Inc., has no involvement in, or control over, such equipment, testing and/or analysis. Acme Environmental Industrial Hygiene, Inc, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Acme Environmental Industrial Hygiene, Inc., has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Acme Environmental Industrial Hygiene, Inc., should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

## Appendix A Asbestos Laboratory Results

CA Labs Dedicated to Quality

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798



**CA Labs, L.L.C.** 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

## Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

#### DC Environmental

PO Box 9315 Albuquerque, NM 87119 Attn:David CharlesworthCustomer Project:DCE 16-178, Rail Yard Parcel 8 Flue ShopReference #:CAL16117606CBDate:11/16/2016

#### **Analysis and Method**

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

#### Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.

#### Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235 AIHA LAP, LLC Laboratory #102929 Crisp Analytical, L.L.C. 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

**CA Labs** 

**Dedicated to** 

Quality

#### CA Labs, L.L.C. 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

## Overview of Project Sample Material Containing Asbestos

Customer Project	ct:	DCE 16-178, Rail Yard Parcel 8	3 Flue Shop	CA Labs Project #: CAL16117606CB
Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
16-178-103	103-1	Brown Cork TSI from Pipe/ tan surfaced black and brown insulation	2% Chrysotile	tan surfaced black and brown insulation
16-178-107	107-1	Building Seam Mastic/ black mastic	2% Chrysotile	black mastic tan sealant
16-178-108	108-1	Building Seam Mastic/ black mastic	2% Chrysotile	_
16-178-109	109-1	Building Seam Mastic/ black mastic	2% Chrysotile	_
16-178-113	113-1	<i>Window Putty/ tan sealant</i>	2% Chrysotile	_
16-178-114	114-1	Window Putty/ tan sealant	2% Chrysotile	_
16-178-115	115-1	Window Putty/ tan sealant	2% Chrysotile	_

#### Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235 AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate	pe - perlite
gypsum - gypsum	qu - quartz
bi - binder	
or - organic	
ma - matrix	
mi - mica	
ve - vermiculite	
ot - other	

pa - palygorskite (clay)

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

fg - fiberglass

mw - mineral wool wo - wollastinite ta - talc sy - synthetic ce - cellulose br - brucite ka - kaolin (clay)

CA Labs

Dedicated to Quality 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

## Polarized Light Asbestiform Materials Characterization

Customer I DC Enviro	onment		David Charlesworth	Custon	ner Project:	CA Labs Project #: CAL16117606CB	
PO Box 931 Albuquerqu		87119		8 Flue S	i-178, Rail Yard Parcel Shop <b>sund Time:</b>	Date: Samples Received:	11/16/2016 11/10/16 10:30am
Phone # Fax #	505-86 505-86			5 Days		Date Of Sampling: Purchase Order #:	10/26/16
Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo- geneo us (Y/N)		Non-asbestos fiber type / percent	Non-fibrous type / percent
16-178-100		100-1	Brown Cork TSI from Pipe/ blue surfaced black and brown insulation	п	None Detected		100% qu,mi,bi,ot
			Brown Cork TSI from Pipe/ blue surfaced black and brown				
16-178-101		101-1	insulation Brown Cork TSI from Pipe/ blue surfaced black and brown	n	None Detected		100% qu,mi,bi,ot
16-178-102		102-1	insulation Brown Cork TSI from Pipe/ tan surfaced black and brown	n	None Detected		100% qu,mi,bi,ot
16-178-103		103-1	insulation	п	2% Chrysotile		98% qu,mi,bi,ot
16-178-104		104-1	Concrete Expansion Joint/ brown concrete	у	None Detected		100% qu,bi,ca,ma
16-178-105	1	105-1	Concrete Expansion Joint/ brown concrete	у	None Detected		100% qu,bi,ca,ma
16-178-106			Concrete Expansion Joint/ brown concrete	у	None Detected		100% qu,bi,ca,ma
		Method:	Interim (40CFR Part 763 Appendix E to Subpart on Method: HCL acid washing for carbonate base	<b>, LLC Lai</b> E) / Improved ed samples, ch	nemical reduction for organically b ersion attaining / becke line metho	les received in good condition unles bound components, oil immersion fo	
			gypsum - gypsumve - vermiculitebi - binderot -otheror - organicpe - perlitema - matrixqu - quartz	mw - minera wo - wollast ta - talc sy - synthet	al wool br - brucite inite ka - kaolin (cla pa - palygorski		oved Signatories:
			Strales Massett III			the po	
			Stanley Massett Analyst orted percentages reflect unaltered fibers		6. Anthophyllite in association with Fib		Technical Manager Chad Lytle
3. Actinolite in associ	iation with Verr d - attached to	niculite	ffecting fibrous percentages		<ol> <li>Contamination suspected from other</li> <li>Favorable scenario for water separa</li> <li>&lt; 1% Result point counted positive</li> <li>TEM analysis suggested</li> </ol>	tion on vermiculite for possible analysis by	v another method

CA Labs

Dedicated to Quality 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

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## Polarized Light Asbestiform Materials Characterization

Building Seam Mastic/ black       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-111       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma	Customer l		: David Charlesworth	Custon	ner Project:	CA Labs Project #: CAL16117606CB	
Building Seam Mastic/       black       y       2% Chrysotile       98% qu,bi         16-178-10       10-1       roofing Material/       black       y       2% Chrysotile       98% qu,bi         16-178-111       110-1       roofing Material/       black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/       black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/       black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/       black       y       2% Chrysotile       98% qu,bi         16-178-101       110-1       roofing Material/       black       y       2% Chrysotile       98% qu,bi         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material						CALIGIT/000CB	
Phone #       505-869-8000       5 Days       Samples Received: 11/10/16 10:30am         Phone #       505-869-9453       Date Of Sampling: 10/26/16         Sample #       Com       Layer       Analysts Physical Description of Subsample       Homo- Asbestos type / gene calibrated visual us estimate percent (Y/N)       Non-asbestos tipe / percent       Non-asbestos type / percent       Non-asbestos type / percent       Non-asbestos type / percent       / percent         Building Seam Mastic/ black       y       2% Chrysotile       98% qu,bi       98% qu,bi         16-178-107       107-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-110       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing material       y			q			Dete	11/16/2016
Phone #       505-869-8000       5 Days       Date Of Sampling: 10/26/16         Fax #       505-869-9453       Purchase Order #:         Sample #       Com       Layer       Analysts Physical Description of ment       Homo- Asbestos type / calibrated visual us estimate percent       Non-asbestos fiber / percent       Non-fibrous type / percent         16-178-107       107-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi       98% qu,bi         16-178-110       110-1       roofing Material/ black       y       2% Chrysotile       98% qu,bi         16-178-110       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/ black       y       None Detected       4% ce       96% qu,ca         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,ca         <	Abuqueique	5, INIVI 07 I	5		•		
Fax #       505-869-9453       Purchase Order #:         Sample #       Com       Layer       Analysis Physical Description of gene calibrated visual estimate percent (Y/N)       Non-asbestos fiber / percent       Non-fibrous type / percent         Building Seam Mastic / black       gene calibrated visual estimate percent (Y/N)       Non-asbestos fiber / percent       / percent         Building Seam Mastic / black       y       2% Chrysotile       98% qu,bi         Building Seam Mastic / black       y       2% Chrysotile       98% qu,bi         Building Seam Mastic / black       y       2% Chrysotile       98% qu,bi         16-178-108       108-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-110       110-1 rooling material       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1 rooling material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1 rooling material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dalias NVLAP Lab Code 200349-0 TEM/PUM       TC	Dhana #		200		ound lime:	•	
Sample #       Com       Layer       Analysts Physical Description of ment       Homo- alsoestos type / calibrated visual use estimate percent       Non-alsoestos fiber / percent       Non-fibrous type / percent         Building Seam Mastic/       black       y       2% Chrysotile       98% qu,bi         16-178-107       107-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       106-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-100       100-1       roofing Material/ black       y       2% Chrysotile       98% qu,bi         16-178-110       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,ca         Dallas NVLAP Lab Code 20034-0 TEM/PLM       TCEQ# T104704513-15-3				5 Days			10/26/16
ment       #       Subsample       geneo       calibrated visual estimate percent       type / percent       / percent         16-178-107       107-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-107       107-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       106-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       black       y       2% Chrysotile       98% qu,bi         16-178-110       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/ black       y       None Detected       4% ce       96% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca				Llomo	Ashastas tursa /		Non fibrous tuno
us estimate percent (Y/N)         Building Seam Mastic/ black       y       2% Chrysotile       98% qu,bi         16-178-107       107-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-10       110-1 roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1 roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1 roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEC# T104704513-15-3       TDH 30-0235       2HH LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 789 Appendic to subsofts parely 50 dipersion of capacity bound components, oil immersion for identidiatind to absoft samples, chomical reduction for ca	Sample #						••
(Y/N)         Building Seam Mastic/ black       y       2% Chrysotile       98% qu,bi         16-178-107       107-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1 mastic       y       2% Chrysotile       98% qu,bi         16-178-100       110-1 roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1 roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1 roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dalas NVLAP Lab Code 200349-0 TEM/PLM       TCEd# Tid4704513-15-3       TDH 30-0235       LHA LAP, LL C Laboration 4% components, of immersion tor identified interime (40CFR Part 783 Appendix E to Stapendix E to Stapendix D, Amarphas resolved in good condition unless noted.         Preparation Method: Interim (40CFR Part 783 Appendix E			Cubcampio	0		type / percent	, porooni
16-178-107       107-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-100       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEC# T104704513-15-3       TDH 30-0235       AlHA LAP, LLC Laboratory #102929         Analysis Method: Intetrim (40CFR Part 763 Appendix E to Subpart				(Y/N)	·		
16-178-107       107-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-108       108-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         16-178-100       110-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing Material/ black       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235       AlHA LAP, LLC Laboratory #102929         Analysis Method: Intetrim (40CFR Part 763 Appendix E to Subpart							
Building Seam Mastic/ black         y         2% Chrysotile         98% qu,bi           16-178-108         108-1 mastic         y         2% Chrysotile         98% qu,bi           16-178-109         109-1 mastic         y         2% Chrysotile         98% qu,bi           16-178-109         109-1 mastic         y         2% Chrysotile         98% qu,bi           16-178-109         109-1 mastic         y         2% Chrysotile         98% qu,bi           16-178-110         110-1 roofing Material/ black         y         None Detected         4% ce         96% qu,bi,ma           16-178-111         111-1 roofing material         y         None Detected         4% ce         96% qu,bi,ma           16-178-111         111-1 roofing material         y         None Detected         4% ce         96% qu,bi,ma           16-178-112         112-1 roofing material         y         None Detected         4% ce         96% qu,bi,ma           16-178-113         113-1         Window Putty/ tan sealant         y         2% Chrysotile         98% qu,ca           Dailas NVLAP Lab Code 200349-0 TEM/PLM         TCEC# T104704513-15-3         TDH 30-0235         IHA LAP, LLC Laboratory #102929           Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples receiv	16 179 107	107		.,	2º/ Chrysostila		0.00% au bi
16-178-108       108-1 mastic       y       2% Chrysotile       98% qu,bi         Building Seam Mastic/ black         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         Roofing Material/ black         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EM-8401/R-893/116). All samples moles/and in good condition unless noted.         Preparation Method: HCL add washing for carabonat	16-178-107	107-	1 mastic	у	2% Chrysotile		98% qu,bi
16-178-108       108-1 mastic       y       2% Chrysotile       98% qu,bi         Building Seam Mastic/ black         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         Roofing Material/ black         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EM-8401/R-893/116). All samples moles/and in good condition unless noted.         Preparation Method: HCL add washing for carabonat							
Building Seam Mastic/ black         16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         Roofing Material/ black         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AltA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (GP-400 / R-93/116). All samples received in good conditi	40.470.400		. –				000/
16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         Roofing Material/ black         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / Pa/3/116). All samples received in good condition unless noted. <td>16-178-108</td> <td>108-</td> <td>1 mastic</td> <td>у</td> <td>2% Chrysotile</td> <td></td> <td>98% qu,bi</td>	16-178-108	108-	1 mastic	у	2% Chrysotile		98% qu,bi
16-178-109       109-1       mastic       y       2% Chrysotile       98% qu,bi         Roofing Material/ black         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / Pa/3/116). All samples received in good condition unless noted. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Roofing Material/ black         16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235       AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E)/ Improved (EPA-600 / R-93/116).       All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.			. –				
16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Ite-178-112         112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         LHA LAP, LLC Laboratory #102929         Preparation Method: HCL acid washing for carbonating for carbonating for carbonating chemoting chemical redu	16-178-109	109-	1 mastic	у	2% Chrysotile		98% qu,bi
16-178-110       110-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Ite-178-112         112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         LHA LAP, LLC Laboratory #102929         Preparation Method: HCL acid washing for carbonating for carbonating for carbonating chemoting chemical redu							
Roofing Material/ black         16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235       AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.       Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.			-				
16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235       IHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.       Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.	16-178-110	110-	1 roofing material	у	None Detected	4% ce	96% qu,bi,ma
16-178-111       111-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235       IHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.       Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.							
Roofing Material/ black         16-178-112       112-1       roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235       Intervertion 100 (CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line metho							
16-178-112       112-1 roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929       Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.	16-178-111	111-	1 roofing material	у	None Detected	4% ce	96% qu,bi,ma
16-178-112       112-1 roofing material       y       None Detected       4% ce       96% qu,bi,ma         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929       Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.							
16-178-113       113-1       Window Putty/ tan sealant       y       2% Chrysotile       98% qu,ca         Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.			-				
Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.	16-178-112	112-	1 roofing material	у	None Detected	4% ce	96% qu,bi,ma
Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.							
Dallas NVLAP Lab Code 200349-0 TEM/PLM       TCEQ# T104704513-15-3       TDH 30-0235         AIHA LAP, LLC Laboratory #102929         Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted.         Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.							
AIHA LAP, LLC Laboratory #102929 Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.	16-178-113	113-		У			98% qu,ca
Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.						5-3 TDH 30-0235	
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.							
			tion Method: HCL acid washing for carbonate bas	ed samples, cl	hemical reduction for organically b	ound components, oil immersion f	
				fg - fibergla	ce - cellulose		
gypsum - gypsum ve - vermiculite mw - mineral wool br - brucite bi - binder ot -other wo - wollastinite ka - kaolin (clay)						v)	
or - organic pe - perlite ta - talc pa - palygorskite (clay) Approved Signatories:			or - organic pe - perlite	ta - talc	pa - palygorski		oved Signatories:
ma - matrix qu - quartz sy - synthetic			ma - matrix qu - quartz	sy - synthet	tic		Ū
States Masser III & C. , po			Stale Masser III			el., po	
Stanley Massett QAC Technical Manager			Stanley Massett			JAQ	Technical Manager
Analyst Leslie Crisp, P.G. Chad Lytle							-
1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers 6. Anthophyllite in association with Fibrous Talc			eported percentages reflect unaltered fibers			ous Talc	
2. Fire Damage no significant fiber damages effecting fibrous percentages       7. Contamination suspected from other building materials         3. Actinolite in association with Vermiculite       8. Favorable scenario for water separation on vermiculite for possible analysis by another method	3. Actinolite in associa	tion with Vermiculite			8. Favorable scenario for water separat		by another method
I. Layer not analyzed - attached to previous positive layer and contamination is suspected       9. < 1% Result point counted positive			s positive layer and contamination is suspected				

**CA Lab**s

Dedicated to Quality 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

## CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

## Polarized Light Asbestiform Materials Characterization

Customer I DC Enviro	onmental	David Charlesworth		ner Project:	CA Labs Project #: CAL16117606CB	
PO Box 931 Albuquerque	5 e, NM 87119	)	8 Flue S	•	Date:	11/16/2016
Phone # 505-869-8000 Fax # 505-869-9453				ound Time:	Samples Received: Date Of Sampling: Purchase Order #:	11/10/16 10:30am 10/26/16
Sample #	Com Layer ment #	Analysts Physical Description of Subsample	Homo- geneo us (Y/N)		Non-asbestos fiber type / percent	Non-fibrous type / percent
<u>16-178-114</u>	114-1	<i>Window Putty</i> / tan sealant	y	2% Chrysotile		98% qu,ca
16-178-115	115-1	Window Putty/ tan sealant	y	2% Chrysotile		98% qu,ca
16-178-116	116-1	<b>Red Roofing Material</b> / black roofing shingle with brown gravel	у	None Detected	6% ce	94% qu,bi
	116-2	black felt	у	None Detected	30% ce	70% qu,bi,ma
<u>16-178-117</u>	117-1	<b>Red Roofing Material</b> / black roofing shingle with brown gravel	y	None Detected	6% ce	94% qu,bi
	117-2	black felt	У	None Detected	30% ce	70% qu,bi,ma
16-178-118	118-1	<b>Red Roofing Material</b> / black roofing shingle with brown gravel	у	None Detected	6% ce	94% qu,bi
	Analysis Method:	Interim (40CFR Part 763 Appendix E to Subpart on Method: HCL acid washing for carbonate bas	P, LLC Lal t E) / Improved eed samples, ch	nemical reduction for organically be ersion attaining / becke line metho	es received in good condition unles	
		gypsum - gypsum     ve - verniculite       bi - binder     ot -other       or - organic     pe - perlite       ma - matrix     qu - quartz	mw - minera wo - wollast ta - talc sy - synthet	al wool br - brucite inite ka - kaolin (clay pa - palygorskit	,	oved Signatories:
		Stale Manut III			el, po	
2. Fire Damage no sig		Stanley Massett Analyst ported percentages reflect unaltered fibers effecting fibrous percentages		6. Anthophyllite in association with Fibro 7. Contamination suspected from other		Technical Manager Chad Lytle

**CA Labs** 

**Dedicated to** Quality

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

## Polarized Light Asbestiform Materials Characterization

Customer Info: Attn: David Charlesworth DC Environmental		Custom	er Project:	CA Labs Project #: CAL16117606CB			
	PO Box 9315 Albuquerque, NM 87119			DCE 16 <sup>.</sup> 8 Flue S	-178, Rail Yard Parcel hop	Date:	11/16/2016
				Turnaro	ound Time:	Samples Received:	11/10/16 10:30am
Phone #	505-8	69-800	0	5 Days		Date Of Sampling:	10/26/16
Fax #	505-8	69-945	3			Purchase Order #:	
Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		118-2	black felt	у	None Detected	30% ce	70% qu,bi,ma
16-178-119		119-1	Floor Paint Stripe/ tan paint debris	n	None Detected		100% qu,bi,ca,ma
16-178-120		120-1	Floor Paint Stripe/ tan paint debris	n	None Detected		100% qu,bi,ca,ma
16-178-121		121-1	Floor Paint Stripe/ tan paint debris	n	None Detected		100% qu,bi,ca,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

#### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate gypsum - gypsum bi - binder or - organic ma - matrix

mi - mica ve - vermiculite ot -other pe - perlite qu - quartz

Staly Manut III

Stanley Massett

Analyst

fg - fiberglass mw - mineral wool wo - wollastinite ta - talc sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

el., po

QAC Leslie Crisp, P.G. Anthophyllite in association with Fibrous Talc
 Contamination suspected from other building materials

**Technical Manager** Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers 2. Fire Damage no significant fiber damages effecting fibrous percentages

3. Actinolite in association with Vermiculite

4. Laver not analyzed - attached to previous positive laver and contamination is suspected 5. Not enough sample to analyze

8. Favorable scenario for water separation on vermiculite for possible analysis by another method

9. < 1% Result point counted positive

10. TEM analysis suggested

Page 6 of 6

					Un	161	176	,06	
D			PO / Job#: DC	E 16-178		and the second se	10/26/2016		
C E DC Environmenta Consulting and Tr			Turn Around Ti	me: Same	Day / IDay	/ 2Day /	3Day / 4Da	v SDav	
		ne Workplace"	□ PCM: □ NIC				C Rotom	1	
DC Environmental PO Box 9315 Albuquerque, NM 87119			PLM Standard / Point Count 400 - 1000 / CARB 435						
Contact: J. David Charlesworth			TEM Air:	AHERA	/ 🗖 Yamate?		H 7402		
Phone:	Fax		TEM Bulk:	Quantita Potable	tive / 🗆 Qual	litative / [	Chatfield		
505.869.8000 E-mail:	505	5.869.9453	□ TEM Water: □ Potable / □ Non-Potable / □ Weight % □ TEM Microvac: □ Qual(+/-) / □ D5755(str/area) / □ D5756(str/ma						
JDCharlesworthcih@gmail.			IAQ Particle I     Particle Identi	dentificati fication (T	on (PLM LAB EM LAB)		PLM Opa Special Pr		
Site: City of Albuquerque ()	Intera)		Metals Analys				- opecial rt	ojeci	
Site Location: Rail Yard Pa	rcel 8 Flue Sh	op	Matrix:						
Comments:			Analytes:						
6 J II		Sample Location / Dec	1		FOR AIR SAI	MPLES ON	NI.Y	Sample	
Sample ID	Date	Sample Location / Descr	iption / Task	Туре	Time	Avg.	Total	Area /	
16-178-100	10/26	Brown cork TSI from pip	e in Flue Shop	A P C	On/Off	LPM	Time	Volum	
16-178-101	10/26	Brown cork TSI from pip	Brown cork TSI from pipe in Flue Shop						
16-178-102	10/26	Brown cork TSI from pip	e in Flue Shop	A P					
16-178-103	10/26	Brown cork TSI from pipe	e in Flue Shop	A P C					
16-178-104	10/26	Concrete Expansion Jo	int Flue Shop	A P C					
16-178-105	10/26	Concrete Expansion Jo	int Flue Shop	A P C					
16-178-106	10/26	Concrete Expansion Jo	int Flue Shop	A P C					
16-178-107	10/26	Building seam mastic	Flue Shop	A P C					
16-178-108	10/26	Building seam mastic	Flue Shop	A P					
16-178-109	10/26	Building seam mastic	Flue Shop	A P					
umpled By: Steven Gutierrea	z			С					
ipped Via: 🗆 Fed Ex 🛛 🗖	DHL U	PS US Mail Courier	Drop Off	Other:					
linquished By: Steven Gutierre te / Time: 11/09/2016 5:00PM	z	Relinquished By:			elinquished B	y:			
ceived By:		Date / Time:		D	ate / Time:				
tte / Time: 11-10-16 (0	+303-	Received By: Date / Time:			eceived By: ate / Time:				
ndition Acceptable?	D No	Condition Acceptable?	2 9 200 9 10			Yes 🗆 N	0		

PO Box 9315, Albuquerque, New Mexico 87119 f505.869.9453

11.1

n n 1.

D			PO / Job#:DCE 16-178 Date : 10/26/2016								
CE DC Environment Consulting and T			Site: City of A	lbuquerqu	e (Intera)						
"Promoti DC Environmental	ng Safety in the	Workplace"	Site Location: Rail Yard Parcel 8 Flue Shop								
PO Box 9315 Albuquerque, NM 87119			Comments:								
Contact: . David Charlesworth											
Phone: 505.869.8000	Fax: 505.	869.9453									
E-mail: DCharlesworthcih@gmail.											
Continuation Sheet for Sam	ple Chain of C	ustody									
Sample ID	Date	Sample Location / De	scription / Task		FOR AIR SAM	MPLES ON	ILY	Sample Area /			
16-178-110	_			Туре	Time On/Off	Avg. LPM	Total Time	Air Volume			
10-170-110	10/26	Roofing Material	Flue Shop	P C							
16-178-111	10/26	Roofing Material	Flue Shop	A							
16-178-112	10/26	Roofing Material	Flue Shop	A P							
16-178-113	10/26	Window putty F	lue Shop	A P							
16-178-114	10/26	Window putty F	lue Shop	A P							
16-178-115	10/26	Window putty F	lue Shop	A P							
16-178-116	10/26	Red Roofing Material addition		A P C							
16-178-117	10/26	Red Roofing Material addition	Flue Shop New	A P C							
16-178-118	10/26	Red Roofing Material addition		A P C							
16-178-119	10/26	Flue shop floor p	aint stripe	A P C							
16-178-120	10/26	Flue shop floor p	aint stripe	A P C							
16-178-121	10/26	Flue shop floor p	aint stripe	A P C							
				A P C							
				A P C							
				A P							
ampled By: Steven Gutierre	z			C							

C-11-10-16 10:3041

#### Appendix B XRF Lead Measurements

# Project #16-178Project NameRailyard parcel #8, Flue Shop Date10/26/16AddressCity of Albuquerque RailyardsTechnicianM. Nieman and S. Gutierrez

	Time :	1448			Results	Average
1		Cal.			1.1	
2		Cal.			1.1	
3		Cal.			1.1	1.1
4		Cal.			-0.2	
5		Cal			0.0	
6		Cal.			-0.1	-0.1
XRF						
Test						
Numbe		Component -	Compone			Result /
r	Location / Room	Designation	nt Number	Color	Substrate	Reading
_		A 147 H		Off-		
7	Interior	A-Wall		White	Concrete	-0.0
8		B-Wall		Red	Concrete	-0.0
9		C-Wall		Silver	Concrete	01.
10		D-Wall		Silver	Concrete	01.
11		Window Mullions	D-1	Silver	Steel	0.2
12		Door Fame	D-1	Silver	Metal	0.0
13		Door	D-1	Silver	Metal	-0.0
14		A-Wall Shelf		White	Metal	-0.1
		A-Wall Electrical				
15		Cabinet		Grey	Metal	-0.1
		A-Wall Southwest				
16		Addition Joist		Red	Metal	-0.1
		A-Wall Southwest				
17		Addition Metal Wall		Silver	Metal	0.2
		Southwest Addition				
18		B-Wall Door		Grey	Metal	-01.
19		A-Wall Door Frame	A-1	Grey	Metal	-0.1
20		Floor		White	Concrete	>9.9
21		Floor		Red	Concrete	0.3
22		Door	D-1	Beige	Wood	1.7
23		Door Frame	B-1	Black	Metal	1.0
24		Door Stop	B-1	Black	Metal	1.0
25	Exterior	C-Wall		Beige	Concrete	-0.1
26		Door	C-1	Beige	Metal	-0.1
27		Window Frame	C-4	Green	Metal	0.2
28		C-Wall Stand Pipe		Beige	Metal	-0.1

29		Urinal		Silver	metal	0.1
30		Ladder Cage		Red	Metal	-0.1
31		A-Wall		Beige	Concrete	-0.1
32		Window Sill	A-7	Beige	CMU	-0.1
33		Exhaust Fan	A-1	Beige	Metal	0.1
34		B-Wall		Red	CMU	-0.2
35	Roof	Drip edge		Rust	Metal	0.2
36		AC Unit		Silver	Metal	-0.1
37		Window Farme		Red	Metal	-0.0
	Ti	me 1540			Results	Average
38	Post	Cal.			1.0	
39	Post	Cal.			1.0	
40	Post	Cal.			1.1	1.1
41	Post	Cal.			-0.1	
42	Post	Cal.			-0.2	
43	Post	Cal.			0.0	-0.1

## Appendix C Asbestos and LBP Data

ID	Read No/Sample ID Le	ead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
1	7 0.1	1	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Sill	QM	Wood	Brown	Interior	Innovar, 2011
2	8 0.1	1	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Sash	QM	Wood	Brown	Interior	Innovar, 2011
3	9 0.1	2	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
4	10 0.3	2	mg/cm2		1	Railyards Amtrack Office	Office	А	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
5	11 -0	.2	mg/cm2		1	Railyards Amtrack Office	Office	В	Wall	U Ctr		QM	Plaster	White	Interior	Innovar, 2011
6	12 0		mg/cm2		1	Railyards Amtrack Office	Office	С	Door	Ctr	U Ctr	QM	Steel	Brown	Interior	Innovar, 2011
7	13 0		mg/cm2		1	Railyards Amtrack Office	Office	С	Door	Ctr	Lft casing	QM	Steel	Brown	Interior	Innovar, 2011
8	14 0.2	2	mg/cm2		1	Railyards Amtrack Office	Office	В	Window	Ctr	Sill	QM	Wood	Brown	Interior	Innovar, 2011
9	15 0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Window	Ctr	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
10	16 0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Window	Clr	Sash	QM	Wood	Brown	Interior	Innovar, 2011
11	17 0		mg/cm2		3	Railyards Amtrack Office	Office	А	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
12	-0	.2	mg/cm2		3	Railyards Amtrack Office	Office	А	Wall	L Rgi		QM	Plaster	White	Interior	Innovar, 2011
13	-0	.2	mg/cm2		3	Railyards Amtrack Office	Office	D	Door	Rgi	U Rgt	QM	Steel	Brown	Interior	Innovar, 2011
14	20 0.1	1	mg/cm2		3	Railyards Amtrack Office	Office	D	Door	Rgt	LIt casing	QM	Steel	Brown	Interior	Innovar, 2011
15	21 0.	7	mg/cm2		4	Railyards Amtrack Office	Break Rm	В	Chair rail	Clr		QM	Wood	Brown	Interior	Innovar, 2011
16	22 0.3	2	mg/cm2		4	Railyards Amtrack Office	Break Rm	В	Window	Ctr	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
17	23 >9	9.9	mg/cm2	Yes	4	Railyards Amtrack Office	Break Rm	В	Wall	L Ctr		QM	Plaster	Whiie	Interior	Innovar, 2011
18	24 0.3	2	mg/cm2		4	Railyards Amtrack Office	Break Rm	С	Baseboard	Clr		QM	Plaster	White	Interior	Innovar, 2011
19		9.9	mg/cm2	Yes	4	Railyards Amtrack Office	Break Rm	В	Wall	U Lft			Plaster	White	Interior	Innovar, 2011
20	26 >9	9.9	mg/cm2	Yes	4	Railyards Amtrack Office	Break Rm	В	Wall	L Rgt		QM	Plaster	White	Interior	Innovar, 2011
21	27 0.3	3	mg/cm2		4	Railyards Amtrack Office	Break Rm	С	Wall	L Clr		QM	Drywall	White	Interior	Innovar, 2011
22	28 0.3	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
23	29 >9	9.9	mg/cm2	Yes			Lobby	А	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
24	30 0.3	3	mg/cm2		10	Railyards Amtrack Office	Lobby	D	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
25		3	mg/cm2			Railyards Amtrack Office	Lobby	А	Window	Ctr	Sash		Wood	Brown	Interior	Innovar, 2011
26		9.9	mg/cm2	Yes	10		Lobby	А	Column	Ctr			Plaster	White	Interior	Innovar, 2011
27	33 >9	9.9	mg/cm2				Lobby	А	Column	Clr		QM	Plaster	White	Interior	Innovar, 2011
28	34 1.3	1	mg/cm2	Yes			Hallway	В	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
29	35 >9	9.9	mg/cm2	Yes	12	Railyards Amtrack Office	Hallway	D	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
30		_	mg/cm2					D	Wall	L Ctr					Interior	Innovar, 2011
31			mg/cm2			1	WmnsRm	A	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
32			mg/cm2				WmnsRm	В	Door	Ctr	_		Wood		Interior	Innovar, 2011
33			mg/cm2			1		В	Floor				Cement	Brown	Interior	Innovar, 2011
34			mg/cm2	-			Number Only	С	Stairs	Ctr				Black	Interior	Innovar, 2011
35			mg/cm2				Number Only	С	Stairs	Ctr			Steel	Black	Interior	Innovar, 2011
36			mg/cm2				Upstairs	С	Wall	L Clr			Plaster	White	Interior	Innovar, 2011
37			mg/cm2			,	Upstairs	В	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
38			mg/cm2				Upstairs	A	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
39			mg/cm2				Upstairs	A	Door				Wood	White	Interior	Innovar, 2011
40			mg/cm2	_			Upstairs	В	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
41			mg/cm2			•	Upstairs	А	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
42			mg/cm2	-			Museum	A	Floor				Cement	Gray	Interior	Innovar, 2011
43			mg/cm2	Yes			Museum	А	Floor				Cement	White	Interior	Innovar, 2011
44			mg/cm2			,	Museum	А	Floor				Cement	White	Interior	Innovar, 2011
45			mg/cm2				Museum	D	Wall	L Ctr			Cement	Gray	Interior	Innovar, 2011
46	58 0.2	2	mg/cm2		16	Railyards Amtrack Office	Museum	В	Wall	L Ctr		QM	Cement	Gray	Interior	Innovar, 2011

ID Read No/Sample ID	Lead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
47 59	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Wall	L Ctr		QМ	Cement	Gray	Interior	Innovar, 2011
48 60	6.3		Yes		Railyards Amtrack Office	Museum	А	Floor			QM	Cement	Yellow	Interior	Innovar, 2011
49 61	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	U Ctr	QМ	Steel	Green	Interior	Innovar, 2011
50 62	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	U Ctr	QМ	Steel	Black	Interior	Innovar, 2011
51 63	0.5	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	Lft casing	QM	Steel	Black	Interior	Innovar, 2011
52 64	0.7	mg/cm2		16	Railyards Amtrack Office	Museum	А	Floor			QM	Cement	Red	Interior	Innovar, 2011
53 65	1.8		Yes	1	Railyards Amtrack Office	Facility	В	Railing	Ctr	Railing	QМ	Steel	Yellow	Exterior	Innovar, 2011
54 66	0.2	mg/cm2		1	Railyards Amtrack Office	Facility	В	Door	Ctr	U Ctr	QМ	Steel	Red	Exterior	Innovar, 2011
55 67	-0.1	mg/cm2		1	Railyards Amtrack Office	Facility	D	Window	Ctr	Sill	QM	Wood	Black	Exterior	Innovar, 2011
56 68	0.2	mg/cm2		1	Railyards Amtrack Office	Facility	D	Window	Ctr	Sash	QM	Wood	Black	Exterior	Innovar, 2011
57 69	0	mg/cm2		1	Railyards Amtrack Office	Facility	С	Window	Rgt	Sill	QM	Wood	Black	Exterior	Innovar, 2011
58 7	5	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
59 8	1.1	mg/cm2	Yes	1	Main Machine Shop	Number Only	С	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
60 9	2.2	mg/cm2	Yes	1	Main Machine Shop	Number Only	С	Column	Clr		QM	Sleel	Silver	Interior	Innovar, 2011
61 10	0.1	mg/cm2		1	Main Machine Shop	Number Only	А	Floor			QM	Ceramic	Red	Interior	Innovar, 2011
62 11	1.8	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
63 12	0.7	mg/cm2		1	Main Machine Shop	Number Only	В	Stairs	Ctr	Treads	QM	Steel	Green	Interior	Innovar, 2011
64 13	1.9	mg/cm2	Yes	1	Main Machine Shop	Number Only	D	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
65 14	5.4	mg/cm2	Yes	1	Main Machine Shop	Number Only	D	Ceiling Beam	Beam	Ctr	QM	Steel	Silver	Interior	Innovar, 2011
66 15	4.2	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Column	Ctr		QM	Steel	Black	Exterior	Innovar, 2011
67 16	2.7	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Stairs	Ctr	Treads	QM	Wood	White	Interior	Innovar, 2011
68 1	3.4	mg/cm2	Yes		Boiler Shop	Number Only	В	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
69 2	0.1	mg/cm2			Boiler Shop	Number Only	А	Floor			QM	Cement	Red	Interior	Innovar, 2011
70 3	3.2	mg/cm2	Yes		Boiler Shop	Number Only	С	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
71 4	2.5	mg/cm2	Yes		Boiler Shop	Number Only	А	Column	Lft		QM	Steel	Silver	Interior	Innovar, 2011
72 5	-0.3	mg/cm2			Boiler Shop	Number Only	С	Door	Lft	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
73 1	1.1	mg/cm2	Yes		Blacksmith Shop	Number Only	В	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
74 2	3.1	mg/cm2	Yes		Blacksmith Shop	Number Only	С	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
75 3	2.1	mg/cm2	Yes		Blacksmith Shop	Number Only	D	Wall	L Ctr		QM	Brick	Silver	Interior	Innovar, 2011
76 4	0.2	mg/cm2			Blacksmith Shop	Number Only	D	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
77 5	0.1	mg/cm2			Blacksmith Shop	Number Only	D	Window	Ctr	Part. Bead	QM	Steel	Silver	Interior	Innovar, 2011
78 7	2.7	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Bldg North of Firehouse	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
79 8	2.3	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Window	Ctr	Lft casing	QM	Steel	Silver	Interior	Innovar, 2011
80 9	5.6	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
81 10	1.1	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Window	Ctr	Rgt casin	QM	Steel	Silver	Interior	Innovar, 2011
82 11	2.4	mg/cm2	Yes		Bldg North of Firehouse	Number Only	С	Frame	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
83 12	1.1	mg/cm2	Yes		Bldg North of Firehouse	Number Only	С	Wall	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
84 13	0.2	mg/cm2			Bldg North of Firehouse	Number Only	D	Wall	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
85 1	1.1	mg/cm2	Yes		Bldg South of Firehouse	Number Only	А	Wall	L Ctr		QM	Cement	White	Interior	Innovar, 2011
86 2	0.1	mg/cm2			Bldg South of Firehouse	Number Only	В	Wall	L Ctr		QM	Cement	White	Interior	Innovar, 2011
87 3	0	mg/cm2			Bldg South of Firehouse	Number Only	A	Door Cnt	Ctr	Lft casing	QM	Cement	White	Interior	Innovar, 2011
88 4	1.1	mg/cm2	Yes		Bldg South of Firehouse	Number Only	A	Column	Ctr		QM	Cement	Green	Interior	Innovar, 2011
89 5	1.2	mg/cm2	Yes		Bldg South of Firehouse	Number Only	В	Wall	L Ctr		QM	Cement	Green	Interior	Innovar, 2011
90 6	0.5	mg/cm2			Bldg South of Firehouse	Number Only	С	Door	Ctr	U Ctr	QM	Cement	Green	Interior	Innovar, 2011
91 13029.029-020513-01L	150	ppm			Blacksmith Shop			Interior Walls	NW Corner			Paint	Silver		Rhoades, 2013
92 13029.029-020513-02L	410	ppm			Blacksmith Shop			Interior Walls	NE Corner			Paint	Silver		Rhoades, 2013

ID	Read No/Sample ID	Lead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
93	13029.029-020513-03L	100	ppm			Blacksmith Shop			Interior Walls	SW Corner			Paint	Silver		Rhoades, 2013
94	13029.029-020513-04L	150	ppm			Blacksmith Shop			Interior Walls	SE Corner			Paint	Silver		Rhoades, 2013
95	13029.029-020513-05L	2570	ppm			Blacksmith Shop			Overhead Piping				Paint	Red		Rhoades, 2013
96	13029.029-020513-06L	2640	ppm			Blacksmith Shop			Exterior Brick Walls		Trim		Paint	Rust		Rhoades, 2013
97	13029.029-020513-07L	4040	ppm			Blacksmith Shop			Interior Walls Office Shack				Paint	Cream		Rhoades, 2013
98	13029.029-020513-08L	250	ppm			Blacksmith Shop			Building	NW Corner			Surface Dust			Rhoades, 2013
99	13029.029-020513-09L	400	ppm			Blacksmith Shop			Building	NE Corner			Surface Dust			Rhoades, 2013
100	13029.029-020513-10L	100	ppm			Blacksmith Shop			Building	Center			Surface Dust			Rhoades, 2013
101	13029.029-020513-11L	710	ppm			Blacksmith Shop			Building	SW Corner			Surface Dust			Rhoades, 2013
102	13029.029-020513-12L	970	ppm			Blacksmith Shop			Building	SE Corner			Surface Dust			Rhoades, 2013

			Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
2 5	577007-NB.NS.1	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
10	577007-NB.NS.2	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
3 5	577007-NB.NS.3	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
4 5	577007-NB.SS.4	Sep-05	Green painted window pane	Boiler Shop, South Side	0%			Terracon, 2005
5 5	577007-NB.SS.5	Sep-05	Green painted window pane	Boiler Shop, South Side	0%			Terracon, 2005
6 5	577007-NB.SS.6	Sep-05	Green painted window pane	Boiler Shop, North Side	0%			Terracon, 2005
7 5	577007-NB.NS.7	Sep-05	Silver glaze coating window pane	Boiler Shop, North Side	0%			Terracon, 2005
8 5	577007-NB.NS.8	Sep-05	Silver glaze coating window pane	Boiler Shop, North Side	0%			Terracon, 2005
9 5	577707-NB.NS.9	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
10 5	577007 -NB.NS.10	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
11 5	577007-NB.NS.11	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
12 5	577007-SB.SS.F1.1	Sep-05	Silver glaze coating window pane	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
13 5	577007 -SB.SS.F1.2	Sep-05	Glaze coating on window pane (silverlblack)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
14 5	577007-SB.SS.F1.3	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
15 5	577007 -SB.SS.F1.4	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
16 5	577007 -SB.SS.F1.5	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
17 5	577007-SB.SS.F1.6	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
18 5	577007 -SB.SS.F1.7	Sep-05	Glaze coating on window pane (silver/green)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
19 5	577007-SB.SS.F2.1	Sep-05	Glaze coating on window pane (beige/green)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
20 5	577007-SB.SS.F2.2	Sep-05	Glaze coating on window pane (tanJbrown)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
21 5	577007-SB.SS.F2.3		Glaze coating on window pane (off-white)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
22 5	577007-SB.SS.F2.4		Glaze coating on window pane (grey/green)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
23 5	577007-SB.SS.F2.5		Glaze coating on window pane (off-white)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
24 5	577007-SB.SS.F2.6		Plaster over cc wall (grey with paint)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
25 5	577007-SB.SS.F2.7		Plaster over cc wall (grey with paint)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
	577007-NB.SS.1		Window glazing (tan)	Boiler Shops, South Side	Trace <1%			Terracon, 2005
27 5	577007-NB.SS.2	Sep-05	Window glazing (tan)	Boiler Shops, South Side	2%	Chrysotile	Non-Friable	Terracon, 2005
28 5	577007-NB.SS.3		Window glazing (tan)	Boiler Shops, South Side	2%	Chrysotile	Non-Friable	Terracon, 2005
29 5	577007-NB.SS.01	Sep-05	Window glazing (beige)	Boiler Shops, South Side	Trace <1%	Chrysotile		Terracon, 2005
30 5	577007-NB.SS.02		Window glazing (beige)	Boiler Shops, South Side	Trace <1%	,		Terracon, 2005
31 5	577007-NB.SS.03		Window glazing (beige)	Boiler Shops, South Side	Trace <1%	Chrysotile		Terracon, 2005
32 5	577007 -NB.ES.01		Window glazing (beige)	Boiler Shops, East Side	Trace <1%	, Chrvsotile		Terracon, 2005
	577007-NB.ES.02		Window glazing (beige)	Boiler Shops, East Side		Chrysotile		Terracon, 2005
34 5	577007 -N.O.01		Outside shingle (red with granules)	Outside the Boiler Shop	0%	,		Terracon, 2005
35 5	577007-N.O.02		Outside shingle (red with granules)	Outside the Boiler Shop	0%			Terracon, 2005
_	577007-N.O.03		Outside shingle (red with granules)	Outside the Boiler Shop	0%			Terracon, 2005
37 5	577007-N.O.G.01		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
38 5	577007-N.O.G.02		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
_	577007-N.O.G.03		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
	577007 -NTE. WS-1		Transite pipe (grey)	Former Transformer Area, West Side		Chrysotile	Friable	Terracon, 2005
_	577007 -NTE. WS-1		Transite pipe (grey)	Former Transformer Area, West Side		Crocidolite		Terracon, 2005
42 5	577007 -NTE.ES-3		Transite pipe (grey)	Former Transformer Area		Chrysotile	Friable	Terracon, 2005
43 5	577007 -NTE.ES-3		Transite pipe (grey)	Former Transformer Area	5%	Crocidolite		Terracon, 2005
44 5	577007-NTE.ES-1 (577007-NTE.NS-1??)		Transite pipe (grey)	Former Transformer Area	25%	Chrysotile	Friable	Terracon, 2005
45 5	577007-NTE.ES-1 (577007-NTE.NS-1??)		Transite pipe (grey)	Former Transformer Area		Crocidolite		Terracon, 2005
	577007-SWB.WW.01		Window putty/glazing (beige)	Babbit Shop, West Wall	Trace <1%			Terracon, 2005
	577007-SWB.WW.02		Window putty/glazing (beige)	Babbit Shop, West Wall	Trace <1%	,		Terracon, 2005
	577007-FH.01		Insulation/plaster over brick	Fire House	0%			Terracon, 2005
	577007-FH.02		Insulation/plaster over brick	Fire House	0%			Terracon, 2005
	577007-FH.03		Insulation/plaster over brick	Fire House		Chrysotile	Friable	Terracon, 2005
	577007-FH.04		Insulation/plaster over brick	Fire House		Chrysotile	Friable	Terracon, 2005
	01-DW1-1		off-white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011
	01-DW1-2	•	white drywall with brown paper (drywall)	Amtrack Office	none detected			Innovar, 2011
	02-DW1-1	•	white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011

ID	Sample Number Date	Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
55 03-DW1-	-1 Aug-	10 white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011
56 04-P1-1	Aug-	10 white surfaced tan plaster (plaster)	Amtrack Office	none detected			Innovar, 2011
57 05-P1-1	Aug-	10 white surfaced tan plaster (plaster)	Amtrack Office	none detected			Innovar, 2011
58 06-P1-1	Aug-	10 white surfaced white compound (plaster)	Amtrack Office	none detected			Innovar, 2011
59 06-P1-2	Aug-	10 tan plaster (plaster)	Amtrack Office	none detected			Innovar, 2011
60 07-CB1-1	1 Aug-	10 pink cover base (cover base)	Amtrack Office	none detected			Innovar, 2011
61 07-CB1-2	2 Aug-	10 tan mastic (cover base)	Amtrack Office	none detected			Innovar, 2011
62 07-CB1-3	3 Aug-	10 white surfaced white compound (cover base)	Amtrack Office	none detected			Innovar, 2011
63 07-CB1-4	4 Aug-	10 brown mastic (cover base)	Amtrack Office	<1%	Anthophyllite		Innovar, 2011
64 07-CB1-5	5 Aug-	10 tan plaster (cover base)	Amtrack Office	none detected			Innovar, 2011
65 08-CB1-1	1 Aug-	10 pink cover base (cover base)	Amtrack Office	none detected			Innovar, 2011
66 08-CB1-2	2 Aug-	10 tan mastic (cover base)	Amtrack Office	none detected			Innovar, 2011
67 08-CB1-3	3 Aug-	10 brown mastic (cover base)	Amtrack Office	<1%	Anthophyllite		Innovar, 2011
68 08-CB1-4	4 Aug-	10 tan plaster (cover base)	Amtrack Office	none detected			Innovar, 2011
69 09-CB1-1		10 pink cover base (cover base)	Amtrack Office	none detected			Innovar, 2011
70 09-CB1-2	2 Aug-	10 tan mastic (cover base)	Amtrack Office	none detected			Innovar, 2011
71 09-CB1-3	3 Aug-	10 brown mastic (cover base)	Amtrack Office	<1%	Anthophyllite		Innovar, 2011
72 09-CB1-4	4 Aug-	10 tan plaster (cover base)	Amtrack Office	none detected			Innovar, 2011
73 10-CT1-1	L Aug-	10 white surfacing (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
74 10-CT1-2		10 tan ceiling (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
75 10-CT1-3	3 Aug-	10 brown mastic (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
76 11-CT1-1	L Aug-	10 white surfacing (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
77 11-CT1-2		10 tan ceiling tile (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
78 11-CT1-3		10 brown mastic (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
79 12-CT1-1	L Aug-	10 tan ceilign tile (no surfacing) (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
80 12-CT1-2		10 brown mastic (ceiling tile)	Amtrack Office	none detected			Innovar, 2011
81 13-WC1-	-1 Aug-	10 black surfacing white caulking (Window Caulk)	Amtrack Office	none detected			Innovar, 2011
82 14-WC1-	-1 Aug-	10 black surfacing white caulking (Window Caulk)	Amtrack Office	none detected			Innovar, 2011
83 15-WC1-	-1 Aug-	10 black surfacing white caulking (Window Caulk)	Museum	none detected			Innovar, 2011
84 16-CT2-1		10 white surfacing (ceiling tile)	Museum	none detected			Innovar, 2011
85 16-CT2-2		10 Gray ceiling tile (ceiling tile)	Museum	none detected			Innovar, 2011
86 17-CT2-1		10 White Surfacing (ceiling tile)	Museum	none detected			Innovar, 2011
87 17-CT2-2		10 Gray ceiling tile (ceiling tile)	Museum	none detected			Innovar, 2011
88 18-CT2-1		10 white surfacing (ceiling tile)	Museum	none detected			Innovar, 2011
89 18-CT2-2		10 Gray ceiling tile (ceiling tile)	Museum	none detected			Innovar, 2011
90 19-W1-1		10 black woven covering (Wiring)	Museum	none detected			Innovar, 2011
91 20-W1-1	Aug	10 black woven covering (Wiring)	Museum	none detected			Innovar, 2011
92 13029.02	29-020513-01 Feb-	13 12" Spline Ceiling Tile	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
93 13029.02		13 12" Spline Ceiling Tile	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
94 13029.02		13 12" Spline Ceiling Tile	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
95 13029.02	29·020513-04 Feb-	13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
96 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop		Chrysotile	Poor/Friable	Roades, 2013
97 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop			Poor/Friable	Roades, 2013
98 13029.02	29-020513-07 Feb-	13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
99 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
100 13029.02		13 Interior Plaster - Surface Coat	Office Shack, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
101 13029.02		13 Window Glazing	Reinforced Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
		13 Window Glazing	Reinforced Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
103 13029.02		13 Window Glazing	Reinforced Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
104 13029.02		13 Window Glazing	Clear Glass, Blacksmith Shop		Chrysotile	Poor/Friable	Roades, 2013
105 13029.02		13 Window Glazing	Clear Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
		13 Window Glazing	Clear Glass, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
107 13029.02		13 Window Glazing	Wood Panes, Blacksmith Shop		Chrysotile	Poor/Friable	Roades, 2013
108 13029.02		13 Window Glazing	Wood Panes, Blacksmith Shop		,	Poor/Friable	Roades, 2013
100 10020.02	160-	TO THIS OF ORE IN THE	nosa i unes, blueksmith shop	2/0	10.11 930 010		

ID	Sample Number	Date	Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
109	13029.029-020513-18	Feb-13	Window Glazing	Wood Panes, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
110	13029.029-020513-19	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
111	13029.029-020513-20	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
112	13029.029.020513-21	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
113	13029.029-020513-22	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
114	13029.029.020513-23	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
115	13029.029-020513-24	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
116	13029.029.020513-25	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
117	13029.029.020513-26	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
118	13029.029-020513-27	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
119	13029.029-020513-28	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
120	13029.029-020513-29	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
121	13029.029-020513-30	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
122	13029.029-020513-31	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	8%	Chrysotile	Poor/Non-Friable	Roades, 2013
123	13029.029-020513-32	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
124	13029.029-020513-33	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
125	13029.029-020513-34	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
126	13029.029-020513-35	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
127	13029.029-020513-36	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
128	13029.029-020513-34a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
129	13029.029-020513-35a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
130	13029.029-020513-36a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
131	13029.029-020513-37	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	2%	Chrysotile	Poor/Friable	Roades, 2013
132	13029.029-020513-38	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	3%	Chrysotile	Poor/Friable	Roades, 2013
133	13029.029-020513-39	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	3%	Chrysotile	Poor/Friable	Roades, 2013

Appendix D Lead Based Paint Laboratory Analysis





Client: DC Environmental PO Box 9315 Albuquerque , NM 87119

CEI Lab Code:	C16-0820
Received:	11-14-16
Analyzed:	11-18-16
Reported:	11-18-16

Project: Rail Yard Parcel 8 Flue Shop; DCE 16-178

#### ANALYSIS METHOD: EPA SW846 7000B

CLIENT ID	CEI LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
16-178-1000	CA58074	1300	0.13
16-178-1001	CA58075	7100	0.71

**Reviewed By:** 

Tianbao Bai, Ph.D. Laboratory Director

This method has been validated for sample weights of 0.020g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations. \* The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.

Minimum reporting limit is 10 µg total lead. Sample results denoted with a "less than" (<) sign contain less than 10.0 µg total lead, based on a 40ml sample volume.

Lead samples are not analyzed by CEI Labs Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.

Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, CEI Labs discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of CEI Labs.

REGULATORY LIMITS	OSHA Standard: No safe limit. Consumer Products Safety Standard: Greater than 0.06% lead by weight. Federal Lead Standard / HUD: 0.5% lead by weight.						
LEGEND	µg = microgram ml = milliliter	ppm = parts per million Pb = lead	g = grams wt = weight				

**End of Report** 

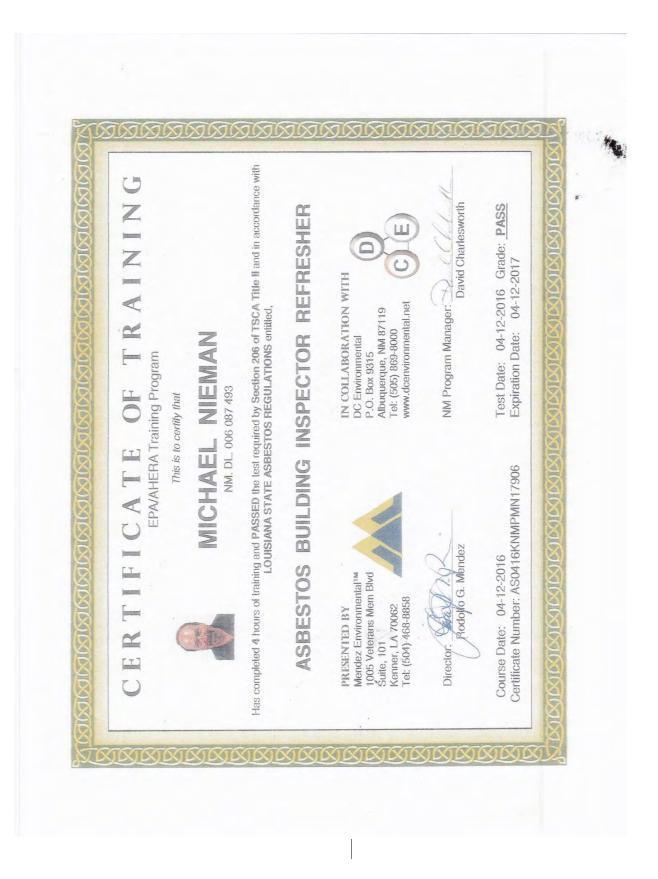
016-0820 2

					CASE	KO74 ·	-CA580	575	
DC Environmental			PO / Job#: DCE 16-178 Date: 10/26/2016						
			Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day						
Consulting and Train	PCM: NIOSH 7400A / NIOSH 7400B Rotometer								
DC Environmental PO Box 9315 Albuquerque, NM 87119			□ PLM: □ Standard / □ Point Count 400 - 1000 / □ CARB 435						
Contact: J. David Charlesworth			□ TEM Air: □ AHERA / □ Yamate2 / □ NIOSH 7402 □ TEM Bulk: □ Quantitative / □ Qualitative / □ Chatfield						
Phone: Fax: 505.869.8000 505.869.9453			□ TEM Water: □ Potable / □ Non-Potable / □ Weight % □ TEM Microvac: □ Qual(+/-) / □ D5755(str/area) / □ D5756(str/mass)						
E-mail: JDCharlesworthcih@gmail.c		<ul> <li>IAQ Particle Identification (PLM LAB)</li> <li>Particle Identification (TEM LAB)</li> <li>Special Project</li> </ul>							
Site: City of Albuquerque (Ir		Metals Analysis: Method:							
Site Location: Rail Yard Pard	cel 8 Flue Shor	0	Matrix:						
			Analytes:				·····		
Comments: 'Paint chips to be	e analyzed for	Lead Based Paint	••••••••••••••••••••••••••••••••••••••						
Sample ID	Dete	Sample Location / Descr	Sample Location / Description / Task		FOR AIR SAMPLES ONLY		Sample Area /		
	Date		-	Туре	Time On/Off	Avg. LPM	Total Time	Air Volume	
16-178-1000	10/26	Gray Paint from Window sill in Flue Shop		A P C		-			
16-178-1001	10/26	White Stripe from floor in Flue Shop		A P C		-			
				A P					
				A C					
				P C		-			
				A P		-			
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Sampled By: Steven Gutierre	7		. <u> </u>	c			<del></del>		
	DHL U	PS 🗆 US Mail 🗆 Courier	r 🗖 Drop Off	Other	•				
			Relinquished By:			Relinquished By:			
Relinquished By: Steven Gutierre Date / Time: 11/11/2016 5:00PM	ez 1	Date / Time:				Date / Time:			
Received By: K		Received By:	vived By:			Received By:			
Date / Time: 11/14/16	<b>i</b> :10	Date / Time:	Date / Time:			Date / Time:			
Condition Acceptable? I Yes	D No	Condition Acceptable?	Condition Acceptable?  Yes No			Condition Acceptable?  Yes No			

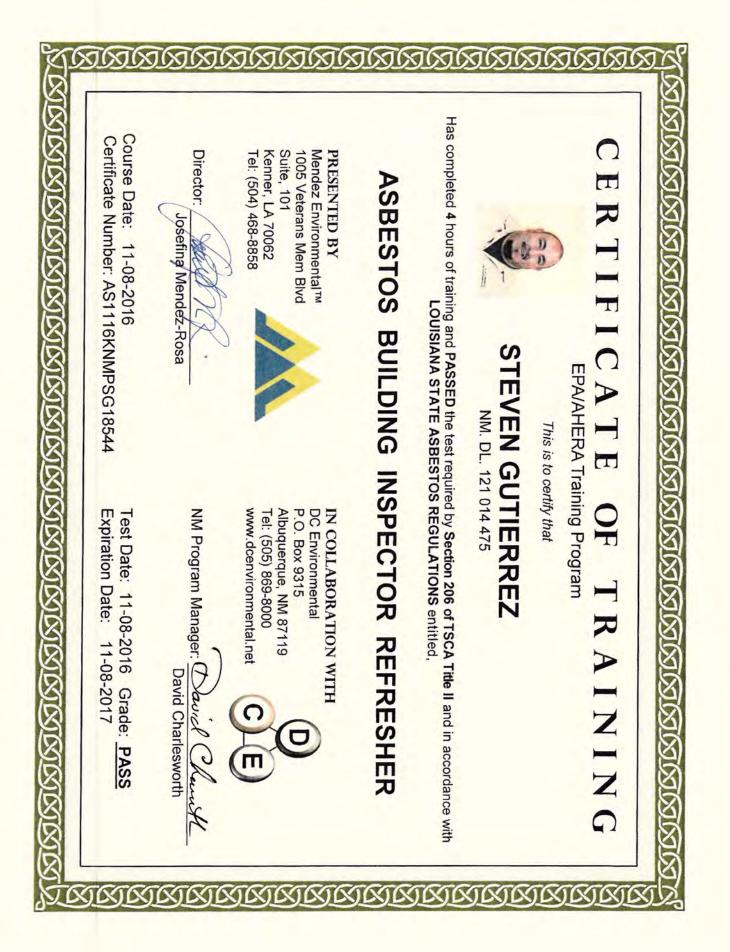
# Appendix E Photography Log

Photogra	aphic Log
Figure TEXETOR OF HILL Shop	Figure 2 Interior of File Supp
Figure 5 merror or rue phop	Figure - Fine of Figure - Shop
Figure 5 Interior of Flue Shop	Figure o Exterior of Flue Shop

Appendix F Certifications



Anited States Environmental Protection Agency	This is to certify that	Michael Neiman has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:	In the Jurizdiction of: New Mexico	This certification is valid from the date of issuance and expires September 25, 2017	Adrieme Priselac, Manager, Toxics Office Land Division
United Sta		E P		This	NM-I-129246-1 Certification # September 11, 2014 Issued On



LBP-I-I159998-1 Certification # April 06, 2016 Issued On	All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories This certification is valid from the date of issuance and expires April 20, 2019	In the Invision	Inspector	has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:	Steven P Gutierrez	This is to certify that	United States Environmental Protection Agency
Adrienne Priselac, Manager, Toxics Office Land Division	am States, Tribes and Territories April 20, 2019	inn of:	WA	trol Act (TSCA) Section 402, and has pursuant to 40 CFR Part 745.226 as:		y that	l Protection Agency



# ASBESTOS AND LEAD BASED PAINT SURVEY City of Albuquerque Railyard Boiler Shop Parcel 8 Albuquerque, NM

**PREPARED FOR:** 

Intera, Inc. 6000 Uptown Blvd, Suite 220 Albuquerque, New Mexico, 87110



DC Environmental PO Box 9315 Albuquerque, New Mexico 87119

> November 9, 2016 Project No. 16-179





November 9, 2016 Project No. 16-179

Mr. Joe Tracy Intera Inc. 6000 Uptown Boulevard, NE Suite 200 Albuquerque, NM 87110

# Subject: Asbestos and Lead Based Paint inspection of the Boiler Shop Parcel 8 – City of Albuquerque Railyard

Dear Mr. Joe Tracy;

In accordance with our proposal, DC Environmental has performed asbestos and lead based paint inspections of the above-referenced facility, located at the City of Albuquerque Railyard, 1100 2nd St SW, Albuquerque, New Mexico. The attached report presents our methodology, findings, opinions, and recommendations regarding the survey.

Lead Containing materials were identified at the Boiler Shop. Asbestos-containing materials were identified at the Boiler Shop.

We appreciate the opportunity to be of service to you on this project. Should you have any questions regarding this report, please contact the undersigned at your convenience.

Sincerely, ACME ENVIRONMENTAL INDUSTRIAL HYGIENE, INC. dba DC Environmental

J. David Charlesworth, CIH Certified Industrial Hygienist

Karen Dremann, BS Senior Scientist

Distribution: (2) Addressee

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### <u>Table</u>

Table 1. Asbestos Lab Results

#### **Appendices**

Appendix A. Asbestos Laboratory Analysis Results Appendix B. XRF Lead Measurements Table Appendix C Lead and Asbestos Data Appendix D Lead Based Paint Laboratory Analysis Results Appendix E. Photographic Log Appendix F. Certifications

#### **EXECUTIVE SUMMARY**

On November 1, 2016, DC Environmental performed an inspection of the Boiler Shop located at the City of Albuquerque Railyard on 2<sup>nd</sup> street in Albuquerque, New Mexico. The inspection was conducted in a response to a request to identify materials which may be impacted during future renovation or demolition activities. Previous sampling and analysis of building materials for lead had been conducted at the property by Innovar in 2011 and Rhoades in 2013. Previous sampling for asbestos had been conducted by Terracon in 2005, Innovar in 2011 and Rhoades in 2013 (See Appendix C). Previous surveys identified LBP on the steel columns and did not identify asbestos containing materials. The focus of our inspection was to determine the presence, location and quantity of asbestos remaining within the facility, and to establish the basis for the presence of lead containing finishes within the structure. The space is being evaluated for a confidential client and the concern is that existing materials may contain asbestos and lead in the finishes.

The inspection design was to conduct a room-by-room investigation for asbestos-containing building materials. Access the functional spaces, where appropriate; evaluate the exterior surfaces; and sample materials suspect for asbestos within the Boiler Shop.

Asbestos-containing building materials are those containing greater than one percent asbestos as determined by polarized light microscopy. Asbestos **was** detected in some of the building materials sampled.

Lead-based paint is defined as coatings containing surface area lead of 1.0 milligrams per square centimeter (1.0 mg/cm<sup>2</sup>) when evaluated by X-Ray Fluorescence. Lead based paint is further defined if laboratory analysis determines the lead content to be one half (0.5 %) percent by weight or greater. The lead inspection of the facility was conducted using an X-Ray Fluorescence (XRF) handheld instrument of select components or areas. The inspector **did** identify painted surfaces with excess lead above the stated regulatory limit.

<u>Lead-containing</u> materials are those with detectable levels of lead in the materials however not at levels above 1.0 mg/cm2. Lead containing materials **were** identified at the Boiler Shop (see Appendix B XRF Lead Measurements and Appendix C Asbestos and Lead Data). Individuals bidding for work should be aware of the presence of lead when performing demolition and renovation activities involving these items.

#### 1. INTRODUCTION

In accordance with our proposal, DC Environmental has performed an investigation of the Boiler Shop located at the City of Albuquerque Railyard in Albuquerque, New Mexico.

The inspection was conducted in a response to a request to have building materials evaluated for future renovation or demolition activities. The focus of our inspection was to determine the presence, location and quantity of asbestos and lead based paint present within the facility. The building is being inspected for a confidential client and the concern is that existing materials may contain asbestos in building materials and lead in the painted finishes.

This report has been prepared in accordance with generally accepted environmental science and engineering practices. This report is based upon conditions at the subject building at the time of the sampling activities and provides documentation of our findings and recommendations.

#### 2. PURPOSE AND SCOPE OF SERVICES

The inspection design was to conduct a room-by-room investigation and assess the facility for the presence of asbestos-containing building materials, and lead-based paint.

The objective of this inspection was to perform the requisite sampling and present the findings along with any recommendations. The services performed by DC Environmental are outlined below.

- A reconnaissance of the area was conducted by Mr. David Charlesworth, Mr. Michael Neiman, and Mr. Steven Gutierrez all accredited Asbestos Building Inspectors, and a Certified Lead Assessor and Inspectors.
- Sampling was conducted using several different types of inspection tools and laboratory techniques including Polarized Light Microscopy and X-Ray Fluorescence.
- Report preparation summarizing our sampling methods and laboratory analysis are included. This report further details our conclusions and recommendations for the project.

#### 3. SITE DESCRIPTION

The subject site consists of one structure, the Boiler Shop

#### The Boiler Shop

The Boiler Shop consists of a single building, roof and exterior. The Boiler Shop is a concrete frame and concrete siding construction. Roofing appeared to be gravel and tar over felt paper on top of concrete.

#### 4. ACTIVITIES

DC Environmental conducted a lead-based paint investigation and asbestos-containing building materials inspection on November 1, 2016 of the Boiler Shop. Analysis of the Interior and exterior painted surfaces incorporated the use of an X-Ray Fluorescence Device. The Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence device was used to measure the lead content of surface coatings on representative homogenous components. Multiple XRF readings were recorded.

The site sampling activities are described below.

#### 4.1. Asbestos-Containing Building Materials

Mr. David Charlesworth, Mr. Michael Nieman, and Mr. Steven Gutierrez conducted a visual inspection for asbestos-containing building materials at the above referenced building. Mr. Nieman collected a total of Fifteen (15) samples that were tested for asbestos using Polarized Light Microscopy and stereomicroscopy bulk asbestos analysis. Analysis was conducted by Crisp Analytical, LLC of Carrollton, Texas. Crisp Analytical is an accredited laboratory and recognized by the National Voluntary Laboratory Accreditation Program. Based upon the samples tested, **two** of the materials sampled were identified as asbestos-containing material.

Gray Insulation on the exterior pipe insulation Tan window putty sealant The Environmental Protection Agency has established terminology regarding asbestos and specifically asbestos-containing building materials. Material which is friable are those materials which can be crushed, crumbled or reduced to powder by hand pressure. Non-friable materials are further characterized as Category I Non-Friable or Category II Non-Friable. Category I Non Friable includes four specific items: Packings, Gaskets, Resilient Flooring and Asphalt Roofing. Category II Non-Friable is everything else which cannot be crumbled or pulverized by hand pressure. These items include materials of drywall systems, plasters, asbestos-containing cements (Transite <sup>®</sup>) and other materials declared non-friable by the asbestos inspector.

The EPA then clarifies that certain materials are Regulated Asbestos Containing Materials (RACM) and these include the following four designations:

- Friable materials;
- Category I Non-Friable Materials which have become friable;
- Category I Non-Friable Materials which have been subject to sanding, grinding, cutting and abrading; and
- Category II Non-friable materials which will be, or have been, subject to force during demolition or renovation.

Regulated Asbestos Containing Materials were **not** present within the structure.

#### 4.2. Lead Based Paint Inspection

The presence of lead based paint was assessed in substantial compliance with the Housing and Urban Development guidelines. DC Environmental conducted a lead-based surface coating screening survey of the interior and exterior of the property to generally identify building components coated with lead. The survey consisted of testing the lead concentrations of each of the accessible surfaces.

To complete the survey, an X- Ray Fluorescence device was used to perform the lead based paint inspection. The Radiation Monitoring Device (RMD) LPA-1 X-Ray Fluorescence device is capable of detecting lead in lead-based paint. The determination of lead in paint is defined as a surface content of at least 1.0 milligrams per square centimeter. If the readings were between the 0.9 to 1.0 mg/cm<sup>2</sup> range, then the readings are declared as either lead-based paint or lead-containing materials and sampling is recommended.

Surfaces that were tested with the XRF device included, but were not limited to the following: doors, ceiling, painted walls, structural steel support, painted door components, roof components, ventilation duct, gates, and framing.

To determine the wall designations, the front entry off of the street or primary doorway is the A wall and interior in a clockwise direction are the B, C and D walls respectively. Exterior walls are similar in the designations.

The XRF device recorded readings did indicate lead based paint in surfaces on the interior and exterior of architectural details and finishes. Please refer to the XRF readings in the appendix to this document.

#### 5. ANALYSES AND RESULTS

The results of samples and analysis are presented in the following tables. Copies of the laboratory analytical results are included in the appendix to this document.

		Asbestos
	Boiler Shop	Type/calibrated/Visual
Sample #	Analyst physical description of subsample	estimate percent
16-179-100	Window Putty Boiler Shop	2% Chrysotile
16-179-101	Window Putty Boiler Shop	2% Chrysotile
16-179-102	Window Putty Boiler Shop	2% Chrysotile
16-179-103	Plaster from mezzanine boiler in boiler shop	ND
16-179-104	Plaster from mezzanine boiler in boiler shop	ND
16-179-105	Plaster from mezzanine boiler in boiler shop	ND
16-179-106	Exterior pipe lagging from Boiler Shop	2% Chrysotile
16-179-107	Exterior pipe lagging from Boiler Shop	2% Chrysotile
16-179-108	Exterior pipe lagging from Boiler Shop	2% Chrysotile
16-179-109	Felt paper underneath wood brick floor in Boiler	ND
16-179-110	Felt paper underneath wood brick floor in Boiler	ND
16-179-111	Felt paper underneath wood brick floor in Boiler	ND
16-179-112	White mineral rolled roofing Boiler Shop	ND
16-179-113	White mineral rolled roofing Boiler Shop	ND
16-179-114	White mineral rolled roofing Boiler Shop	ND

### 5.1. Table 1: Asbestos Sample Analysis

ND – None Detected

#### 5.2 Table 2 Lead Based Paint Chip Analysis

Sample #	Boiler Shop Analyst physical description of subsample	Concentration % by Weight
16-179-1000	Red and White floor stripe from Boiler Shop	0.51
16-179-1001	Silver Paint from Column in Boiler Shop	1.6
16-179-1002	Silver Paint from Wall in Boiler Shop	0.24
16-179-1003	White Paint from Wall Boiler Shop	0.092
16-166-1004	Black wall from Concrete wall in Boiler Shop	6.6
16-166-1005	Red Paint from Column in Boiler Shop	0.49

Lead based paint is further defined if laboratory analysis determines the lead content to be one half (0.5 %) percent by weight or greater.

#### 6. FINDINGS AND CONCLUSIONS

The findings of this inspection are based on our visual observations and analysis of the measurements collected from the facility. Our findings are presented below.

#### 6.1 Asbestos Sampling Analysis

The current visual inspection and sampling of building materials revealed no previously undocumented sources of asbestos-containing building materials. Asbestos-containing building materials were identified in the Boiler Shop.

#### 6.2 Lead Based Paint Analysis

DC Environmental conducted a lead-based surface coating inspection of the interior and exterior of the property to generally identify building components coated with or containing lead. The survey consisted of testing the lead concentrations of over the majority of the interior and exterior surfaces.

During the survey, testing combinations in representative room equivalents were sampled by X-Ray Fluorescence (XRF) in substantial compliance with the XRF protocols established by EPA and presented as guidance in the Housing and Urban Development (HUD) publications. Performance of this survey is consistent and in substantial compliance with the documented methodologies identified by EPA and HUD.

Based on the readings from the XRF devices materials at the Store House Building were considered painted with Lead-based Paint (LBP).

Lead-Based Paint (LBP) is defined by HUD and the EPA as paint containing lead in amounts

greater than or equal to 1.0 mg/cm<sup>2</sup> lead when analyzed by XRF or greater than 5000 parts per million or 0.5 percent by weight when analyzed by Flame Atomic Absorption.

There are materials in this building though, that are considered "lead-containing". Those materials are listed in Appendix B, XRF Lead Measurements and Appendix C Asbestos and Lead Data. Contractors should follow the elements of the standard promulgated by the Occupational Safety and Health Administration. The Lead in Construction Standard 29 CFR 1926.62 applies to exposures to materials containing lead. Lead containing materials **were** identified at the Boiler Shop (see Appendix B XRF Lead Measurements). Individuals bidding for work should be aware of the presence of lead when performing demolition and renovation activities involving these items.

#### 7 RECOMMENDATIONS

Based on our visual observations and the laboratory results, DC Environmental recommends the following:

• Select materials containing asbestos have been identified in the facility. Asbestos **is** present in the above identified materials. The materials containing asbestos will require abatement before substantial renovation or demolition can commence.

The Lead-based Paint inspection **did** identify "lead-based paint" at the Boiler Shop. Leadcontaining items **were** identified at the Boiler Shop. Those materials are listed in Appendix B, XRF Lead Measurements and Appendix C. Asbestos and Lead Data. These materials are regulated by OSHA in regards to those individuals which could be exposed during repair, renovation or demolition. It is recommended to have trained professionals in the OSHA Lead Construction standard handle the lead-based paint and lead-containing materials during disturbance of the material. At the conclusion of the construction activities we recommend a Lead Risk Assessment to include soil testing and settled dust be performed.

We appreciate the opportunity to provide sampling and inspection of this area. Should you have additional questions, or if conditions change substantially, please contact us at your earliest convenience.

Sincerely,

DC Environmental David Charlesworth Certified Industrial Hygienist

#### LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities.

The environmental interpretations and opinions contained in this report are based on the results of instrumentation, laboratory tests and/or analyses Acme Environmental Industrial Hygiene, Inc., has no involvement in, or control over, such equipment, testing and/or analysis. Acme Environmental Industrial Hygiene, Inc, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Acme Environmental Industrial Hygiene, Inc., has no control.

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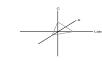
This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

# Appendix A Asbestos Laboratory Results

Crisp Analytical, L.L.C.

CA Labs Dedicated to Quality

1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798



**CA Labs, L.L.C.** 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

DC Environmental

PO Box 9315 Albuquerque, NM 87119 Attn:David CharlesworthCustomer Project:DCE 16-179, City Of Albuquerque (Intera), Rail YardReference #:CAL16117604CRDate:11/16/2016

#### Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

#### Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.

#### Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235 AIHA LAP, LLC Laboratory #102929

Crisp Analytical, L.L.C. **CA Labs** 1929 Old Denton Road Carrollton, TX 75006 Phone 972-242-2754 Fax 972-242-2798

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# Overview of Project Sample Material Containing Asbestos

Customer Proje	ct:	DCE 16-179, City Of Albuquero	ue (Intera), Rail Yard	CA Labs Project #: CAL16117604CR		
Sample #	Layer Analysts Physical Description of # Subsample		Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types		
16-179-100	16-179- 100-1	Window Putty Boiler Shop/ tan sealant	2% Chrysotile	tan sealant gray insulation		
16-179-101	16-179- 101-1	. <b>Window Putty Boiler Shop</b> / tan sealant	2% Chrysotile			
16-179-102	16-179- 102-1	. <b>Window Putty Boiler Shop</b> / tan sealant	2% Chrysotile			
16-179-106	16-179- 106-1	Exterior Pipe Lagging From Boiler Shop/ gray insulation	65% Chrysotile			
16-179-107	16-179- 107-1	Exterior Pipe Lagging From Boiler Shop/ gray insulation	65% Chrysotile			
16-179-108	16-179- 108-1	Exterior Pipe Lagging From Boiler Shop/ gray insulation	65% Chrysotile			

#### Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235 AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate	pe - perlite
gypsum - gypsum bi - binder	qu - quartz
or - organic	
ma - matrix	
mi - mica	
ve - vermiculite	
ot - other	

pa - palygorskite (clay)

wo - wollastinite ta - talc sy - synthetic ce - cellulose br - brucite

mw - mineral wool

fg - fiberglass

ka - kaolin (clay)

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

CA Labs

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**CA Labs, L.L.C.** 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

Customer Info: Attn: David Charlesworth <i>DC Environmental</i> PO Box 9315 Albuquerque, NM 87119		DCE 16-179, City Of C/ Albuquerque (Intera), Rail Yard Parcel 8 Boiler Shop			CAL161	s Project #: 17604CR Date:	11/16/2016			
Phone # Fax #	505-86 505-86				5 Days	ound Time	:	Date Of	s Received: Sampling: se Order #:	11/10/16 10:30 AM 11/01/16
Sample #	Com ment	Layer #	Analysts Phy Subsample	sical Description of	Homo- geneo us (Y/N)	Asbestos calibrateo estimate	d visual		sbestos fiber percent	Non-fibrous type / percent
16-179-100			. <b>Window Putt</b> tan sealant	y Boiler Shop/	у	2% Chrys	sotile			98% qu,ca
16-179-101			. <b>Window Putt</b> tan sealant	y Boiler Shop/	У	2% Chrys	sotile			98% qu,ca
16-179-102			. <b>Window Putt</b> tan sealant	y Boiler Shop/	У	2% Chrys	sotile			98% qu,ca
16-179-103			Plaster From Boiler In Boil surfaced gray	l <b>er Shop</b> / silver	п	None Det	ected			100% qu,bi,ca
16-179-104			Plaster From Boiler In Boil surfaced gray	ler Shop/ silver	n	None Det	ected			100% qu,bi,ca
16-179-105			Plaster From Boiler In Boil surfaced gray	ler Shop/ silver	n	None Det	ected			100% qu,bi,ca
16-179-106		106-1	Boiler Shop/	<b>Lagging From</b> gray insulation	У	65% Chry				35% qu,ma
			Dallas NVLAP L	ab Code 200349-0 T AIHA LAP			104704513-1 102020	5-3 TDH	30-0235	
			on Method: HCL acid	763 Appendix E to Subpart washing for carbonate base identification of asbestos mi - mica ve - vermiculite	t E) / Improved ed samples, ch s types by dispo fg - fiberglas	(EPA-600 / R-93 lemical reduction ersion attaining / ss	3/116). <i>All samp</i> n for organically I	bound compone		
			gypsum - gypsum bi - binder or - organic ma - matrix	ot -other pe - perlite qu - quartz	mw - minera wo - wollasti ta - talc sy - syntheti	inite	ka - kaolin (cla pa - palygorsk		Аррі	roved Signatories:
			Stale M.	Wast III				e (	~ , <sup>pO</sup>	
1. Fire Damage signifi	icant fiber da	mage - rep		ey Massett Analyst unaltered fibers		6. Anthophyllite in	association with Fib		QAC e Crisp, P.G.	Technical Manager Chad Lytle
2. Fire Damage no sig 3. Actinolite in associa	gnificant fiber ation with Ver - attached to	damages e miculite	ffecting fibrous percentag	es		7. Contamination s 8. Favorable scen	suspected from othe ario for water separa oint counted positive	r building material ation on vermiculit	s e for possible analysis	by another method

**CA Labs** 

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CA Labs, L.L.C. 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

Customer Info: Attn: David Charlesworth <i>DC Environmental</i> PO Box 9315 Albuquerque, NM 87119			Customer Project: DCE 16-179, City Of Albuquerque (Intera), Rail Yard Parcel 8 Boiler Shop Turnaround Time:			CAL1611	Project #: 7604CR Date: Received:	11/16/2016 11/10/16 10:30 AM		
Phone # Fax #		69-800 69-945	-		5 Days			Date Of	Sampling: e Order #:	11/01/16
Sample #	Com ment	Layer #	Analysts Phys Subsample	sical Description of	Homo- geneo us (Y/N)	calibrat	os type / ted visual te percent	Non-asl type / p	pestos fiber ercent	Non-fibrous type / percent
16-179-107				Lagging From gray insulation	у	65% Ch	rysotile			35% qu,ma
16-179-108				Lagging From gray insulation	V	65% Ch	rvsotile			35% qu,ma
16-179-109		16-179-	Felt Paper Un	derneath Wood Boiler Shop/	7	None D	-	30% ce		70% qu,ma,bi
16-179-110		16-179-	Felt Paper Un	nderneath Wood n Boiler Shop/	y 	None D		30% ce		70% qu,ma,bi
16-179-111		16-179-	Felt Paper Un	nderneath Wood Boiler Shop/	V	None D		30% ce		70% qu,ma,bi
16-179-112		16-179-			y	None D		4% ce		96% qu,ma,bi
16-179-113		16-179-		I Rolled Roofing black shingle	,	None D	otootod	4% ce		·
10-179-113				ab Code 200349-0 1 AIHA LAP		TCEQ#	T104704513-		80-0235	96% qu,ma,bi
		Preparatio	n Method: HCL acid w	63 Appendix E to Subpart ashing for carbonate base identification of asbestos	ed samples, ch types by disp	emical reduct	tion for organicall ng / becke line me	/ bound componer thod.		
			ca - carbonate gypsum - gypsum bi - binder or - organic ma - matrix	mi - mica ve - vermiculite ot -other pe - perlite qu - quartz	fg - fiberglas mw - minera wo - wollasti ta - talc sy - syntheti	l wool inite	ce - cellulose br - brucite ka - kaolin (c pa - palygore	lay)	Appro	oved Signatories:
			Stale M	ant 111				el	Og , P	
<ol> <li>2. Fire Damage no sig</li> <li>3. Actinolite in associa</li> </ol>	gnificant fiber ation with Ver	damages et miculite		s		7. Contamination 8. Favorable so		Leslie Fibrous Talc her building materials aration on vermiculite	QAC Crisp, P.G.	Technical Manager Chad Lytle

5. Not enough sample to analyze

10. TEM analysis suggested

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CA Labs, L.L.C. 12232 Industriplex, Suite 32 Baton Rouge, LA 70809 Phone 225-751-5632 Fax 225-751-5634

# Polarized Light Asbestiform Materials Characterization

<i>DC Environmental</i> PO Box 9315 Albuquerque, NM 87119		DCE 16-	<b>er Project:</b> 179, City Of rque (Intera), Rail	CA Labs Project #: CAL16117604CR			
			rcel 8 Boiler Shop	Date: Samples Received:	11/16/2016 11/10/16 10:30 AM		
Phone # Fax #		369-8000 369-9453	-	5 Days		Date Of Sampling: Purchase Order #:	11/01/16
Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
16-179-114		16-179-	White Mineral Rolled Roofing Boiler Shop/ black shingle with gray gravel		None Detected	4% ce	96% qu,ma,bi

#### Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

#### AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). All samples received in good condition unless noted. Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

> ca - carbonate gypsum - gypsum bi - binder or - organic ma - matrix

ve - vermiculite ot -other pe - perlite qu - quartz

Stale Marst III

Stanley Massett

Analyst

mi - mica

fg - fiberglass mw - mineral wool wo - wollastinite ta - talc sy - synthetic

ce - cellulose br - brucite ka - kaolin (clay) pa - palygorskite (clay)

Approved Signatories:

eh.po

QAC Leslie Crisp, P.G. Anthophyllite in association with Fibrous Talc
 Contamination suspected from other building materials

**Technical Manager** Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers 2. Fire Damage no significant fiber damages effecting fibrous percentages

3. Actinolite in association with Vermiculite

4. Laver not analyzed - attached to previous positive laver and contamination is suspected 5. Not enough sample to analyze

8. Favorable scenario for water separation on vermiculite for possible analysis by another method 9. < 1% Result point counted positive

10. TEM analysis suggested

CA216117604

			PO / Job#: DCE 16	-179		Date: 11	/01/2016			
D			Turn Around Time	Same Da	v / (Dav / 2	2Day / 3Da	ay / 4Day /	5Day		
CLE DC Environmental Consulting and Training	Services		Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day 5Day							
"Promoting	orkplace"	PCM: NIOSH 7400A / NIOSH 7400B								
OC Environmental O Box 9315 Ibuquerque, NM 87119		PLM Standard / Point Count 400 - 1000 / CARB 435								
Contact: David Charlesworth			TEM Air: AH	mantitativ	e / 🗖 Oualit	ative /	Chatheld			
hone: 505,869,8000	Fax: 505.86	59.9453	TEM Microvac:	Qual(+	-/-) / 🗖 D57	55(str/area)	1 [] [] [] [] [] []			
Z-mail: DCharlesworthcih@gmail.co	m		IAQ Particle Iden     Particle Identific	ation (TE	M LAB)		PLM Opaq Special Pro			
ite: City of Albuquerque (Int	era)		Metals Analysis:	Method:						
ite Location: Rail Yard Parce	el 8 Boiler Sho	op.	Matrix:							
ne Location ran i a			Analytes:	- 1						
Comments:										
		Sample Location / Desc	ription / Task	F	OR AIR SAM	MPLES ON	LY	Sample Area /		
Sample ID	Date	Sample Location / Dese	. ipucu : i .	Туре	Time On/Off	Avg. LPM	Total Time	Air Volume		
16-179-100	11/01	Window Putty Bo	iler Shop	P C						
16-179-101	11/01	Window Putty Bo	iler Shop	A P C						
16-179-102	11/01	Window Putty Bo	iler Shop	P C		-				
16-179-103	11/01	Plaster from mezzanine shop	e boiler in boiler	A P C		-				
16-179-104	11/01	Plaster from mezzanine shop	e boiler in boiler	A P C		-				
16-179-105	11/01	Plaster from mezzaning shop	e boiler in boiler	A A C						
16-179-106	11/01	Exterior pipe lagging fi	rom Boiler Shop	P C		-				
16-179-107	1101	Exterior pipe lagging f	rom Boiler Shop	P C		_				
16-179-108	11/01	Exterior pipe lagging f	rom Boiler Shop	A P C		-				
16-179-109	11/01	Felt paper underneath in Boiler S	P C							
Sampled By: Steven Gutierr	ez									
Shipped Via: D Fed Ex	DHL DI	JPS US Mail Cou	rier 🗆 Drop Off	Othe	er:					
Relinquished By: Steven Gutierrez Date / Time: 11/09/2016 5:00PM Date / Time:					Relinquishe Date / Time					
Date / Time, 10092010 3.001 M					Received By	y:				
Received By: Control Date / Time: 11-10-16	1030An				Date / Time	5				
Condition Acceptable?		Condition Acceptable?	🗆 Yes 🗆 No		Condition A	Condition Acceptable?  Yes No				

					U		01176	
D			PO / Job#: DCE 1	6-179		Da	te :11/01/20	016
CLE) DC Environmental Consulting and Train	ning Services		Site: City of Albu	iquerque	(Intera)			
"Promoting	Safety in the	Workplace"	Site Location: Ra	il Yard P	arcel 8 Boil	er Shop		
C Environmental O Box 9315 Ibuquerque, NM 87119			Comments:					
ontact: David Charlesworth								
hone: 505.869.8000	Fax: 505.8	369.9453						
-mail: DCharlesworthcih@gmail.co	om							
ontinuation Sheet for Sampl	e Chain of Ci	istody						
	Date		tester (Teste	F	OR AIR SAM			Sample Area /
Sample ID	Sample Location / De	scription / Task	Туре	Time On/Off	Avg. LPM	Total Time	Air Volume	
16-179-110	11/01	Felt paper underneath in Boiler S	wood brick floor Shop	P C		-		
16-179-111	11/01	Felt paper underneath in Boiler S	wood brick floor Shop	A P C		-		
16-179-112	11/01	White mineral rolled Shop	d roofing Boiler	P C		-		
16-179-113	11/01	White mineral rolled Shop	)	A P C A		-		
16-179-114	11/01		White mineral rolled roofing Boiler Shop					
				A P C		-		-
				P C A		-	_	
				P C		-		
				P C				
				A P C				
				AP		-		
				A P		-		
				C A P				
				A P				
				C				
				PC				

Appendix B XRF Lead Measurements Project #: 16-179A Project Name: Parcel 18 Boiler Shop Date: 10-31-2016 Address: City of Albuquerque Railyard \_\_\_\_\_ Technician: M. Nieman and S. Gutierrez

	Time :	13:30			Results	Average
1	Film	Cal.			1.0	
2	Film	Cal.			1.0	
3	Film	Cal.			1.0	1.0
4		Cal.			-0.0	
5		Cal			0.0	
6		Cal.			-0.0	-0.0
XRF						
Test	Location /	Component -	Component			Result /
Number	Room	Designation	Number	Color	Substrate	Reading
7	Interior	Center Column		Silver	Metal	2.2
	Interior	Mezzanine Walkway		Silver		
8		Railing			Metal	1.0
9	Interior	Stair Stringer		Silver	Metal	1.0
10	Interior	Stair Tread		Silver	Wood	1.0
11	Interior	Beam		Silver	Metal	2.7
12	Interior	Crane Support Beam		Silver	Metal	1.0
13	Interior	Crane Carriage		Silver	Metal	-0.0
14	Interior	Crane Walkway		Silver	Metal	-0.1
15	Interior	Boiler Room Floor		Silver	Metal	-0.2
16	Interior	Boiler Shim Metal		Silver	Metal	0.4
17	Interior	Duct Work		Silver	Metal	0.1
18	Interior	l Beam		Silver	Metal	0.0
19	Interior	Belt Shroud		Silver	Metal	0.1
20	Interior	C Wall		Silver	Plaster	1.7
	Time :	14:02			Results	Average
21	Film	Cal.			1.3	
22	Film	Cal.			1.3	
23	Film	Cal.			1.4	1.3
24		Cal.			0.2	
25		Cal			-0.0	
26		Cal.			0.1	0.1

 Project #: 16-179B
 Project Name: \_\_\_\_\_\_\_\_
 Boiler Shop Parcel 8
 Date: \_\_\_\_\_\_\_\_
 11-1-2016

 Address: \_\_\_\_\_\_\_
 City of Albuquerque Railyard
 Date: \_\_\_\_\_\_\_\_
 Date: \_\_\_\_\_\_\_\_

Technician: M. Nieman and S. Gutierrez

	Time : _	09:25			Results	Average
1		Cal.			1.0	
2		Cal.			1.0	
3		Cal.			1.0	1.0
4		Cal.			0.0	
5		Cal			0.0	
6		Cal.			-0.3	-0.1
XRF						
Test	Location /	Component -	Component			Result /
Number	Room	Designation	Number	Color	Substrate	Reading
7	Interior	A Wall		Silver	Concrete	0.2
8	Interior	B Wall		Silver	Concrete	0.4
9	Interior	B Wall		Gray	CMU	-0.2
10	Interior	C Wall		Gray	Concrete	0.3
11	Interior	D Wall		Gray	Concrete	2.7
12	Interior	D Wall		Gray	CMU	-0.2
13	Interior	Folding Door	D-5	Silver	Metal	-0.1
14	Interior	Folding Door Frame	D-5	Silver	Metal	2.2
15	Interior	Column	D-5	Silver	Metal	2.3
	Interior	High Pressure Pipe		Red		
16		D Wall			Metal	0.0
	Interior	Electrical Cabinet D		Gray		
17		Wall			Metal	-0.5
18	Interior	Parts Shelf D Wall		Silver	Metal	-0.1
19	Interior	Column Base D Wall	D-4	Silver	Metal	0.4
20	Interior	Column Strip D Wall	D-5	Red	Metal	1.0
21	Interior	Window Paint	A-1	Gray	Glass	-0.2
22	Interior	Duct Work	A-1	Gray	Metal	1.0
23	Interior	Transformer Cabinet	A-1	Gray	Metal	-0.1
	Interior	Transformer Cage				
24		Safety Bollard		Yellow	Metal	-0.1
25	Interior	Beam Cross Brace	B-1	Green	Metal	1.0
26	Interior	Column	B-2	Green	Metal	1.7
27	Interior	Window Frame	B-7	Green	Metal	1.0
28	Interior	Stretcher Cabinet	B-1	Gray	Wood	-0.2
29	Interior	Center Column		Silver	Metal	0.1
30	Interior	Center Divider Wall		Gray	Metal	-0.2

	1	1		T	1	r
31	Tool Room 1	A Wall		Silver	Concrete	3.1
32	Tool Room 1	B Wall		Black	Concrete	2.4
33	Tool Room 1	C Wall		Black	Concrete	2.4
34	Tool Room 1	D Wall		Black	Concrete	1.7
35	Tool Room 1	Door Frame	A-1	Silver	Metal	1.0
36	Tool Room 1	Door Threshold	A-1	Silver	Metal	-0.4
37	Tool Room 1	Window Frame	A-2	Silver	Metal	0.2
38	Tool Room 1	Parts Cabinet		Green	Metal	-0.1
39	Tool Room 2	A Wall		Bare	Concrete	-0.2
40	Tool Room 2	B Wall		Silver	Metal	0.2
41	Tool Room 2	Door Frame	B-1	Silver	Metal	1.0
42	Tool Room 2	Column	C-1	Silver	Metal	1.0
43	Tool Room 2	Counter Top		Gray	Metal	-0.1
44	Tool Room 2	Floor Stripe		White	Wood/Brick	0.0
45	Tool Room 2	Floor Stripe		Red	Wood/Brick	>9.9
46	Service Pit	Service Pit	D-18	Red	Concrete	-0.2
47	Service Pit	A Wall		Silver	Concrete	-0.2
48	Service Pit	Train Rail		Silver	Metal	0.2
49	Service Pit	Stair Riser		Silver	Metal	-0.0
50	Service Pit	Stair Strip		Silver	Metal	-0.1
51	Exterior	B Wall		Beige	Concrete	0.1
52	Exterior	Window Frame	B-12	Gray	Metal	1.0
53	Exterior	Window Glass Putty	B-12	Beige	Glass	0.4
54	Exterior	Folding Door Frame	B-12	Beige	Metal	-0.1
55	Exterior	Down Spout	B-11	Beige	Metal	0.3
56	Exterior	B Wall		Gray	CMU	-0.0
57	Exterior	C Wall		Gray	CMU	-0.3
58	Exterior	Window Sill	C-1	Gray	Concrete	-0.2
59	Exterior	Pipe Support		Gray	Metal	0.1
60	Exterior	Window Frame	C-1	Gray	Metal	-0.1
61	Exterior	Door Frame	C-2	Gray	Metal	0.0
62	Exterior	C Wall Footing		Beige	Concrete	-0.2
63	Exterior	D Wall		Gray	Concrete	-0.2
64	Exterior	D Wall		Gray	CMU	-0.3
65	Exterior	Urinal Partition		Gray	Metal	0.1
66	Exterior	Door Frame	D-2	Black	Metal	1.0
67	Exterior	Roll-up Door	D-3	Gray	Metal	-0.1
68	Exterior	A Wall		Black	Concrete	-0.1
69	Exterior	A Wall		White	Concrete	-0.1
70	Exterior	Roll-up Door Frame	A-1	Gray	Metal	-0.1
71	Exterior	Window Frame	A-1	Red	Metal	0.1
	Time :	10:45			Results	Average

72	Cal.		1.0	
73	Cal.		1.0	
74	Cal.		1.0	1.0
75	Cal.		-0.1	
76	Cal		-0.0	
77	Cal.		-0.3	-0.1

# APPENDIX C Asbestos and LBP Data

ID	Read No/Sample ID Lea	ad	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
1	7 0.1	L	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Sill	QM	Wood	Brown	Interior	Innovar, 2011
2	3 0.1	L	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Sash	QM	Wood	Brown	Interior	Innovar, 2011
3	9 0.2	2	mg/cm2		1	Railyards Amtrack Office	Office	А	Window	Rgt	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
4	10 0.2	2	mg/cm2		1	Railyards Amtrack Office	Office	А	Wall	L Ctr		QM	Plaster	White	Interior	Innovar, 2011
5	-0.2	2	mg/cm2		1	Railyards Amtrack Office	Office	В	Wall	U Ctr		QM	Plaster	White	Interior	Innovar, 2011
6	12 0		mg/cm2		1	Railyards Amtrack Office	Office	С	Door	Ctr	U Ctr	QM	Steel	Brown	Interior	Innovar, 2011
7	13 0		mg/cm2		1	Railyards Amtrack Office	Office	С	Door	Ctr	Lft casing	QM	Steel	Brown	Interior	Innovar, 2011
8	14 0.2	2	mg/cm2		1	Railyards Amtrack Office	Office	В	Window	Ctr	Sill	QM	Wood	Brown	Interior	Innovar, 2011
9	15 0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Window	Ctr	Lft casing	QM	Wood	Brown	Interior	Innovar, 2011
10	16 0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	В	Window	Clr	Sash	QM	Wood	Brown	Interior	Innovar, 2011
11	17 0		mg/cm2		3	Railyards Amtrack Office	Office	А	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
12	18 -0.2	2	mg/cm2		3	Railyards Amtrack Office	Office	А	Wall	L Rgi			Plaster	White	Interior	Innovar, 2011
13		2	mg/cm2		3	1	Office	D	Door	Rgi	U Rgt	QM	Steel	Brown	Interior	Innovar, 2011
14		L	mg/cm2		3	Railyards Amtrack Office	Office	D	Door	-	Llt casing	QM	Steel	Brown	Interior	Innovar, 2011
15	21 0.7	7	mg/cm2		4	Railyards Amtrack Office	Break Rm	В	Chair rail	Clr			Wood	Brown	Interior	Innovar, 2011
16		2	mg/cm2			1	Break Rm	В	Window				Wood	Brown	Interior	Innovar, 2011
17		_	mg/cm2	Yes		'	Break Rm	В	Wall	L Ctr			Plaster	Whiie	Interior	Innovar, 2011
18		_	mg/cm2			1	Break Rm	С	Baseboard	Clr				White	Interior	Innovar, 2011
19			0.	Yes		1	Break Rm	В	Wall	U Lft				White	Interior	Innovar, 2011
20		_	mg/cm2	Yes		1	Break Rm	В	Wall	L Rgt				White	Interior	Innovar, 2011
21			mg/cm2			1	Break Rm	С	Wall	L Clr			,	White	Interior	Innovar, 2011
22			mg/cm2			1	Office	В	Wall	L Ctr				White	Interior	Innovar, 2011
23		_	0,	Yes			Lobby	А	Wall	L Ctr				White	Interior	Innovar, 2011
24			mg/cm2				====;	D	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
25		_	mg/cm2			,	Lobby	A	Window		Sash			Brown	Interior	Innovar, 2011
26		_	0.	Yes			Lobby	A	Column	Ctr				White	Interior	Innovar, 2011
27			mg/cm2				Lobby	A	Column	Clr				White	Interior	Innovar, 2011
28			0.	Yes				В	Wall	L Ctr				White	Interior	Innovar, 2011
29				Yes			Hallway	D	Wall	L Ctr			Plaster	White	Interior	Innovar, 2011
30			mg/cm2					D	Wall	L Ctr					Interior	Innovar, 2011
31		_	mg/cm2			1	WmnsRm	A	Wall	L Ctr				White	Interior	Innovar, 2011
32			mg/cm2				WmnsRm	В	Door	Ctr					Interior	Innovar, 2011
33		_	mg/cm2			1		B	Floor	Chu				Brown	Interior	Innovar, 2011
34			mg/cm2				Number Only	C C	Stairs Stairs	Ctr				Black	Interior	Innovar, 2011
35			mg/cm2				Number Only	C C	Stairs	Ctr				Black	Interior	Innovar, 2011
36 37		_	mg/cm2				Upstairs		Wall	L Clr				White	Interior	Innovar, 2011
			mg/cm2			,	Upstairs	В	Wall Wall	L Ctr				White White	Interior	Innovar, 2011
38 39			mg/cm2				Upstairs	A		L Ctr					Interior	Innovar, 2011
			mg/cm2				Upstairs	A	Door					White	Interior	Innovar, 2011
40 41		_	mg/cm2	_			Upstairs Upstairs	B	Wall Wall	L Ctr				White	Interior	Innovar, 2011
41		_	mg/cm2			•	Upstairs Museum	A A	Floor	L Ctr		· ·		White Gray	Interior	Innovar, 2011
42			mg/cm2				Museum		Floor					White	Interior	Innovar, 2011
43 44			mg/cm2	162			Museum Museum	A 	Floor					White	Interior	Innovar, 2011
44 45		_	mg/cm2			1	Museum	A D	Wall	L Ctr				Gray	Interior Interior	Innovar, 2011 Innovar, 2011
			mg/cm2					-	Wall						1	
46	58 0.2	<u> </u>	mg/cm2		10	Railyards Amtrack Office	Museum	D	vvall	L Ctr		QM	Cement	Gray	Interior	Innovar, 2011

ID Read No/Sample ID	Lead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
47 59	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Wall	L Ctr		QM	Cement	Gray	Interior	Innovar, 2011
48 60	6.3		Yes		Railyards Amtrack Office	Museum	А	Floor			QM	Cement	Yellow	Interior	Innovar, 2011
49 61	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	U Ctr	QM	Steel	Green	Interior	Innovar, 2011
50 62	0.1	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	U Ctr	QМ	Steel	Black	Interior	Innovar, 2011
51 63	0.5	mg/cm2		16	Railyards Amtrack Office	Museum	А	Door	Ctr	Lft casing	QM	Steel	Black	Interior	Innovar, 2011
52 64	0.7	mg/cm2		16	Railyards Amtrack Office	Museum	А	Floor			QM	Cement	Red	Interior	Innovar, 2011
53 65	1.8		Yes	1	Railyards Amtrack Office	Facility	В	Railing	Ctr	Railing	QМ	Steel	Yellow	Exterior	Innovar, 2011
54 66	0.2	mg/cm2		1	Railyards Amtrack Office	Facility	В	Door	Ctr	U Ctr	QM	Steel	Red	Exterior	Innovar, 2011
55 67	-0.1	mg/cm2		1	Railyards Amtrack Office	Facility	D	Window	Ctr	Sill	QM	Wood	Black	Exterior	Innovar, 2011
56 68	0.2	mg/cm2		1	Railyards Amtrack Office	Facility	D	Window	Ctr	Sash	QM	Wood	Black	Exterior	Innovar, 2011
57 69	0	mg/cm2		1	Railyards Amtrack Office	Facility	С	Window	Rgt	Sill	QM	Wood	Black	Exterior	Innovar, 2011
58 7	5	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
59 8	1.1	mg/cm2	Yes	1	Main Machine Shop	Number Only	С	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
60 9	2.2	mg/cm2	Yes	1	Main Machine Shop	Number Only	С	Column	Clr		QM	Sleel	Silver	Interior	Innovar, 2011
61 10	0.1	mg/cm2		1	Main Machine Shop	Number Only	А	Floor			QM	Ceramic	Red	Interior	Innovar, 2011
62 11	1.8	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
63 12	0.7	mg/cm2		1	Main Machine Shop	Number Only	В	Stairs	Ctr	Treads	QM	Steel	Green	Interior	Innovar, 2011
64 13	1.9	mg/cm2	Yes	1	Main Machine Shop	Number Only	D	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
65 14	5.4	mg/cm2	Yes	1	Main Machine Shop	Number Only	D	Ceiling Beam	Beam	Ctr	QM	Steel	Silver	Interior	Innovar, 2011
66 15	4.2	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Column	Ctr		QM	Steel	Black	Exterior	Innovar, 2011
67 16	2.7	mg/cm2	Yes	1	Main Machine Shop	Number Only	В	Stairs	Ctr	Treads	QM	Wood	White	Interior	Innovar, 2011
68 1	3.4	mg/cm2	Yes		Boiler Shop	Number Only	В	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
69 2	0.1	mg/cm2			Boiler Shop	Number Only	А	Floor			QM	Cement	Red	Interior	Innovar, 2011
70 3	3.2	mg/cm2	Yes		Boiler Shop	Number Only	С	Cnt Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
71 4	2.5	mg/cm2	Yes		Boiler Shop	Number Only	А	Column	Lft		QM	Steel	Silver	Interior	Innovar, 2011
72 5	-0.3	mg/cm2			Boiler Shop	Number Only	С	Door	Lft	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
73 1	1.1	mg/cm2	Yes		Blacksmith Shop	Number Only	В	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
74 2	3.1	mg/cm2	Yes		Blacksmith Shop	Number Only	С	Column	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
75 3	2.1	mg/cm2	Yes		Blacksmith Shop	Number Only	D	Wall	L Ctr		QM	Brick	Silver	Interior	Innovar, 2011
76 4	0.2	mg/cm2			Blacksmith Shop	Number Only	D	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
77 5	0.1	mg/cm2			Blacksmith Shop	Number Only	D	Window	Ctr	Part. Bead	QM	Steel	Silver	Interior	Innovar, 2011
78 7	2.7	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Bldg North of Firehouse	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
79 8	2.3	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Window	Ctr	Lft casing	QM	Steel	Silver	Interior	Innovar, 2011
80 9	5.6	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Door	Ctr	U Ctr	QM	Steel	Silver	Interior	Innovar, 2011
81 10	1.1	mg/cm2	Yes		Bldg North of Firehouse	Number Only	А	Window	Ctr	Rgt casin	QM	Steel	Silver	Interior	Innovar, 2011
82 11	2.4	mg/cm2	Yes		Bldg North of Firehouse	Number Only	С	Frame	Ctr		QM	Steel	Silver	Interior	Innovar, 2011
83 12	1.1	mg/cm2	Yes		Bldg North of Firehouse	Number Only	С	Wall	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
84 13	0.2	mg/cm2			Bldg North of Firehouse	Number Only	D	Wall	L Ctr		QM	Cement	Silver	Interior	Innovar, 2011
85 1	1.1	mg/cm2	Yes		Bldg South of Firehouse	Number Only	А	Wall	L Ctr		QM	Cement	White	Interior	Innovar, 2011
86 2	0.1	mg/cm2			Bldg South of Firehouse	Number Only	В	Wall	L Ctr		QM	Cement	White	Interior	Innovar, 2011
87 3	0	mg/cm2			Bldg South of Firehouse	Number Only	A	Door Cnt	Ctr	Lft casing	QM	Cement	White	Interior	Innovar, 2011
88 4	1.1	mg/cm2	Yes		Bldg South of Firehouse	Number Only	А	Column	Ctr		QM	Cement	Green	Interior	Innovar, 2011
89 5	1.2	mg/cm2	Yes		Bldg South of Firehouse	Number Only	В	Wall	L Ctr		QM	Cement	Green	Interior	Innovar, 2011
90 6	0.5	mg/cm2			Bldg South of Firehouse	Number Only	С	Door	Ctr	U Ctr	QM	Cement	Green	Interior	Innovar, 2011
91 13029.029-020513-01L	150	ppm			Blacksmith Shop			Interior Walls	NW Corner			Paint	Silver		Rhoades, 2013
92 13029.029-020513-02L		ppm			Blacksmith Shop			Interior Walls	NE Corner			Paint	Silver		Rhoades, 2013

ID	Read No/Sample ID	Lead	Units	LBP	Room Number	Building	Room Name	Wall	Structure	Location	Member	Mode	Substrate	Color	Location_2	Source
93	13029.029-020513-03L	100	ppm			Blacksmith Shop			Interior Walls	SW Corner			Paint	Silver		Rhoades, 2013
94	13029.029-020513-04L	150	ppm			Blacksmith Shop			Interior Walls	SE Corner			Paint	Silver		Rhoades, 2013
95	13029.029-020513-05L	2570	ppm			Blacksmith Shop			Overhead Piping				Paint	Red		Rhoades, 2013
96	13029.029-020513-06L	2640	ppm			Blacksmith Shop			Exterior Brick Walls		Trim		Paint	Rust		Rhoades, 2013
97	13029.029-020513-07L	4040	ppm			Blacksmith Shop			Interior Walls Office Shack				Paint	Cream		Rhoades, 2013
98	13029.029-020513-08L	250	ppm			Blacksmith Shop			Building	NW Corner			Surface Dust			Rhoades, 2013
99	13029.029-020513-09L	400	ppm			Blacksmith Shop			Building	NE Corner			Surface Dust			Rhoades, 2013
100	13029.029-020513-10L	100	ppm			Blacksmith Shop			Building	Center			Surface Dust			Rhoades, 2013
101	13029.029-020513-11L	710	ppm			Blacksmith Shop			Building	SW Corner			Surface Dust			Rhoades, 2013
102	13029.029-020513-12L	970	ppm			Blacksmith Shop			Building	SE Corner			Surface Dust			Rhoades, 2013

			Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
2 5	577007-NB.NS.1	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
	577007-NB.NS.2	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
3 5	577007-NB.NS.3	Sep-05	Silver glaze coating window pane	Boiler Shop, South Side	0%			Terracon, 2005
4 5	577007-NB.SS.4	Sep-05	Green painted window pane	Boiler Shop, South Side	0%			Terracon, 2005
5 5	577007-NB.SS.5	Sep-05	Green painted window pane	Boiler Shop, South Side	0%			Terracon, 2005
6 5	577007-NB.SS.6	Sep-05	Green painted window pane	Boiler Shop, North Side	0%			Terracon, 2005
7 5	577007-NB.NS.7	Sep-05	Silver glaze coating window pane	Boiler Shop, North Side	0%			Terracon, 2005
8 5	577007-NB.NS.8	Sep-05	Silver glaze coating window pane	Boiler Shop, North Side	0%			Terracon, 2005
9 5	577707-NB.NS.9	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
10 5	577007 -NB.NS.10	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
11 5	577007-NB.NS.11	Sep-05	Silver glaze/black spray-on with pane	Boiler Shop, North Side	0%			Terracon, 2005
12 5	577007-SB.SS.F1.1	Sep-05	Silver glaze coating window pane	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
13 5	577007 -SB.SS.F1.2	Sep-05	Glaze coating on window pane (silverIblack)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
14 5	577007-SB.SS.F1.3	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
15 5	577007 -SB.SS.F1.4	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
16 5	577007 -SB.SS.F1.5	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
17 5	577007-SB.SS.F1.6	Sep-05	Glaze coating on window pane (silver)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
18 5	577007 -SB.SS.F1.7	Sep-05	Glaze coating on window pane (silver/green)	Main Machine Shop, South Side, First Floor	0%			Terracon, 2005
19 5	577007-SB.SS.F2.1	Sep-05	Glaze coating on window pane (beige/green)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
20 5	577007-SB.SS.F2.2	Sep-05	Glaze coating on window pane (tanJbrown)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
21 5	577007-SB.SS.F2.3		Glaze coating on window pane (off-white)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
22 5	577007-SB.SS.F2.4		Glaze coating on window pane (grey/green)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
23 5	577007-SB.SS.F2.5		Glaze coating on window pane (off-white)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
24 5	577007-SB.SS.F2.6		Plaster over cc wall (grey with paint)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
25 5	577007-SB.SS.F2.7		Plaster over cc wall (grey with paint)	Main Machine Shop, South Side, Second Floor	0%			Terracon, 2005
	577007-NB.SS.1		Window glazing (tan)	Boiler Shops, South Side	Trace <1%			Terracon, 2005
27 5	577007-NB.SS.2	Sep-05	Window glazing (tan)	Boiler Shops, South Side	2%	Chrysotile	Non-Friable	Terracon, 2005
28 5	577007-NB.SS.3		Window glazing (tan)	Boiler Shops, South Side	2%	Chrysotile	Non-Friable	Terracon, 2005
29 5	577007-NB.SS.01	Sep-05	Window glazing (beige)	Boiler Shops, South Side	Trace <1%	Chrysotile		Terracon, 2005
30 5	577007-NB.SS.02		Window glazing (beige)	Boiler Shops, South Side	Trace <1%	,		Terracon, 2005
31 5	577007-NB.SS.03		Window glazing (beige)	Boiler Shops, South Side	Trace <1%	Chrysotile		Terracon, 2005
32 5	577007 -NB.ES.01	Sep-05	Window glazing (beige)	Boiler Shops, East Side	Trace <1%	Chrysotile		Terracon, 2005
33 5	577007-NB.ES.02		Window glazing (beige)	Boiler Shops, East Side	Trace <1%	Chrysotile		Terracon, 2005
34 5	577007 -N.O.01		Outside shingle (red with granules)	Outside the Boiler Shop	0%	,		Terracon, 2005
35 5	577007-N.O.02		Outside shingle (red with granules)	Outside the Boiler Shop	0%			Terracon, 2005
	577007-N.O.03		Outside shingle (red with granules)	Outside the Boiler Shop	0%			Terracon, 2005
37 5	577007-N.O.G.01		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
38 5	577007-N.O.G.02		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
	577007-N.O.G.03		White insulation	100 ft North of CWE Strorage Shed	NA			Terracon, 2005
40 5	577007 -NTE. WS-1	Sep-05	Transite pipe (grey)	Former Transformer Area, West Side	25%	Chrysotile	Friable	Terracon, 2005
	577007 -NTE. WS-1		Transite pipe (grey)	Former Transformer Area, West Side		Crocidolite		Terracon, 2005
42 5	577007 -NTE.ES-3		Transite pipe (grey)	Former Transformer Area		Chrysotile	Friable	Terracon, 2005
43 5	577007 -NTE.ES-3		Transite pipe (grey)	Former Transformer Area	5%	Crocidolite		Terracon, 2005
44 5	577007-NTE.ES-1 (577007-NTE.NS-1??)		Transite pipe (grey)	Former Transformer Area	25%	Chrysotile	Friable	Terracon, 2005
	577007-NTE.ES-1 (577007-NTE.NS-1??)		Transite pipe (grey)	Former Transformer Area		Crocidolite		Terracon, 2005
	577007-SWB.WW.01		Window putty/glazing (beige)	Babbit Shop, West Wall	Trace <1%			Terracon, 2005
	577007-SWB.WW.02		Window putty/glazing (beige)	Babbit Shop, West Wall	Trace <1%	,		Terracon, 2005
	577007-FH.01		Insulation/plaster over brick	Fire House	0%			Terracon, 2005
	577007-FH.02		Insulation/plaster over brick	Fire House	0%			Terracon, 2005
	577007-FH.03		Insulation/plaster over brick	Fire House		Chrysotile	Friable	Terracon, 2005
	577007-FH.04		Insulation/plaster over brick	Fire House		Chrysotile	Friable	Terracon, 2005
	01-DW1-1		off-white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011
	01-DW1-2	•	white drywall with brown paper (drywall)	Amtrack Office	none detected			Innovar, 2011
	)2-DW1-1	•	white surfaced white compound (drywall)	Amtrack Office	none detected			Innovar, 2011

Sign 1         Aug 10 white surfaced an plaster (absert)         Amrark Office         none detected         Imm           27 05-P1-1         Aug-10 white surfaced an plaster (absert)         Amrark Office         none detected         Imm           93 05-P1-2         Aug-10 white surfaced an plaster (absert)         Amrark Office         none detected         Imm           93 05-P1-2         Aug-10 bit plaster (absert)         Amrark Office         none detected         Imm           01 07-D11-1         Aug-10 bit plaster (absert)         Amrark Office         none detected         Imm           01 07-D11-4         Aug-10 bit marks (cover base)         Amrark Office         none detected         Imm           01 07-D11-4         Aug-10 bit marks (cover base)         Amrark Office         none detected         Imm           01 07-D11-4         Aug-10 bit plaster (absert)         Amrark Office         none detected         Imm           01 07-D11-4         Aug-10 bit plaster (absert)         Amrark Office         none detected         Imm           01 07-D11-4         Aug-10 bit plaster (absert)         Amrark Office         none detected         Imm           01 07-D11-4         Aug-10 bit plaster (absert)         Amrark Office         none detected         Imm           01 07-D12         Aug-10 bit plaster (ab	Source
97         95         97-11         Aug 10         behies varies diver (compound [pister]         Amtrack Office         none detected         Image: the pister           98         67-11         Aug 10         ang 10 an pister (pister)         Amtrack Office         none detected         Image: the pister           99         67-12.1         Aug 10         an mask 10 cover base         Amtrack Office         none detected         Image: the pister           61         07-05.1-2         Aug 10         bin work 10 cover base         Amtrack Office         none detected         Image: the pister           61         07-05.1-2         Aug 10         bins varies (cover base)         Amtrack Office         none detected         Image: the pister           61         07-05.1-2         Aug 10         bins varies (cover base)         Amtrack Office         none detected         Image: the pister           61         07-05.1-2         Aug 10         bins varies (cover base)         Amtrack Office         none detected         Image: the pister           61         07-05.1-2         Aug 10         bins varies (cover base)         Amtrack Office         none detected         Image: the pister           61         06-05.1-1         Aug 10         and pister (cover base)         Amtrack Office         none detected	Innovar, 2011
S96 0P11         Aug 10 white surfaced white compound [pileter]         Antrack Office         none detected         none           93 0F.P.2         Aug 10 pink cover base (over base)         Antrack Office         none detected         inf           06 07 C81.1         Aug 10 pink cover base (over base)         Antrack Office         none detected         inf           06 07 C81.3         Aug 10 pink cover base (over base)         Antrack Office         none detected         inf           06 07 C81.4         Aug 10 tan masts (cover base)         Antrack Office         none detected         inf           06 07 C81.5         Aug 10 tan pasts (cover base)         Antrack Office         none detected         inf           06 07 C81.5         Aug 10 tan mast (cover base)         Antrack Office         none detected         inf           06 08 C81.2         Aug 10 tan mast (cover base)         Antrack Office         none detected         inf           07 08 C81.3         Aug 10 tan mast (cover base)         Antrack Office         none detected         inf           07 08 C81.3         Aug 10 tan mast (cover base)         Antrack Office         none detected         inf           17 09 C81.3         Aug 10 tan mast (cover base)         Antrack Office         none detected         inf           16 C71.4         Aug 1	Innovar, 2011
199         0.991-2         Aug-10         Intrack Office         none detected         intrack office           60         07.53.1         Aug-10 tan matic (cover base)         Amtrack Office         none detected         intrack office           61         07.53.3         Aug-10 tan matic (cover base)         Amtrack Office         none detected         intrack office           63         07.53.4         Aug-10 threawn masic (cover base)         Amtrack Office         none detected         intrack office           64         07.53.4         Aug-10 pink cover base (cover base)         Amtrack Office         none detected         intrack office           66         08.53.1         Aug-10 pink cover base (cover base)         Amtrack Office         none detected         intrack office           67         08.53.1         Aug-10 grean matic (cover base)         Amtrack Office         none detected         intrack office           68         05.61.4         Aug-10 grean matic (cover base)         Amtrack Office         none detected         intrack office           70         05.61.2         Aug-10 grean matic (cover base)         Amtrack Office         none detected         intrack office           70         05.61.2         Aug-10 grean matic (cover base)         Amtrack Office         none detected         intra	Innovar, 2011
660 7:651-1         Aug. 20 (pmk cover base)         Antrack Office         none detected         in           610 7:651-2         Aug. 20 (pmk sey fixed white compound (cover base)         Antrack Office         none detected         Im           62 07:7631-3         Aug. 20 (pmk sey fixed white compound (cover base)         Antrack Office         none detected         Im           63 07:651-4         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           64 07:7631-5         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           65 08:651-1         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           66 08:651-3         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           67 08:651-3         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           67 08:651-3         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           70 09:651-2         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           71 09:651-3         Aug. 20 (pm k cover base)         Antrack Office         none detected         Im           71 09:651-4         Aug. 20 (pm k cover base) <td>Innovar, 2011</td>	Innovar, 2011
61.07:681-2         Aug.20 [am matic (cover base)         Antrack Office         none detected         In           63.07:681-4         Aug.20 [am matic (cover base)         Antrack Office         0.28 [Antophylling         In           63.07:681-4         Aug.20 [am plater (cover base)         Antrack Office         0.000 effected         In           65.08:623-1         Aug.20 [am cattic (cover base)         Antrack Office         0.000 effected         In           65.08:623-1         Aug.20 [am matic (cover base)         Antrack Office         0.000 effected         In         In           66.08:623-1         Aug.20 [am matic (cover base)         Antrack Office         0.000 effected         In         In           67.08:623-3         Aug.20 [am plater (cover base)         Antrack Office         0.000 effected         In         In           68.09:621-1         Aug.20 [am natic (cover base)         Antrack Office         0.000 effected         In         In           70.09:623-2         Aug.20 [am natic (cover base)         Antrack Office         0.000 effected         In         In           71.09:623-3         Aug.20 [am natic (cover base)         Antrack Office         0.000 effected         In         In           72.09:623-4         Aug.20 [am natic (cover base)         Antrack Office <td< td=""><td>Innovar, 2011</td></td<>	Innovar, 2011
12.0 7:01:3         Aug. 10         Instruct of thice         one detected         one           63.07:02:4         Aug. 10         Instruct of thice         one detected         in           64.07:02:4         Aug. 10         Instruct of thice         one detected         in           64.07:02:4         Aug. 10         Instruct of thice         one detected         in           65.08:02:1         Aug. 10         Instruct of thice         one detected         in           66.08:02:1         Aug. 10         Instruct of thice         one detected         in           67.08:02:1         Aug. 10         Instruct of thice         one detected         in           67.08:02:1         Aug. 10         Instruct of thice         one detected         in         in           67.08:02:1         Aug. 10         Instruct of thice         one detected         in         in           70.09:01:2         Aug. 10         Instruct of thice         one detected         in<	Innovar, 2011
63         Or.261-4         Aug.10 brown mattic (cover base)         Antrack Office         0.31% Anthophyllie         In m           64         Or.261-5         Aug.210 pitAster (cover base)         Antrack Office         none detected         In m           65         Sc.261-1         Aug.210 pitA cover base)         Antrack Office         none detected         In m           65         Sc.21-3         Aug.210 brown mattic (cover base)         Antrack Office         or.31% Anthophyllie         In m           67         Oc.21-3         Aug.210 pitAster (cover base)         Antrack Office         or.31% Anthophyllie         In m           68         Sc.21-3         Aug.210 pitAster (cover base)         Antrack Office         none detected         In m           70         Oc.21-1         Aug.210 pitAster (cover base)         Antrack Office         none detected         In m           71         Oc.261-3         Aug.210 pitAster (cover base)         Antrack Office         none detected         In m           72         Oc.261-3         Aug.210 pitAster (cover base)         Antrack Office         none detected         In m           72         Oc.261-3         Aug.210 pitAster (cover base)         Antrack Office         none detected         In m           72         Oc.261-3	Innovar, 2011
6407-0515     Aug-10 tan plaster (cover base)     Antrack Office     none detected     Im       6508-651-2     Aug-10 tan mastic (cover base)     Antrack Office     none detected     Im       6608-651-2     Aug-10 tan mastic (cover base)     Antrack Office     none detected     Im       6708-651-3     Aug-10 tan plaster (cover base)     Antrack Office     none detected     Im       6708-651-3     Aug-10 tan plaster (cover base)     Antrack Office     none detected     Im       6708-651-3     Aug-10 tan plaster (cover base)     Antrack Office     none detected     Im       7109-651-3     Aug-10 tan mastic (cover base)     Antrack Office     none detected     Im       7109-651-3     Aug-10 tan mastic (cover base)     Antrack Office     none detected     Im       7109-651-3     Aug-10 tan plaster (cover base)     Antrack Office     none detected     Im       7110-71-1     Aug-10 tan celling (celling tile)     Antrack Office     none detected     Im       7110-71-1     Aug-10 tan celling (celling tile)     Antrack Office     none detected     Im       7110-71-3     Aug-10 tan celling (celling tile)     Antrack Office     none detected     Im       7110-71-3     Aug-10 tan celling (celling tile)     Antrack Office     none detected     Im       7110-71-3	Innovar, 2011
65 Be CB1-1         Aug-10 pink cover base (cover base)         Antrack Office         one detected         Imm           67 Be CB1-3         Aug-10 [rown mattle (cover base)         Antrack Office         0.5% Anthophyllite         Imm           67 Be CB1-3         Aug-10 [rown mattle (cover base)         Antrack Office         0.0% detected         Imm           68 Be CB1-1         Aug-10 [rown mattle (cover base)         Antrack Office         none detected         Imm           69 Be CB1-1         Aug-10 [rown mattle (cover base)         Antrack Office         none detected         Imm           70 Be CB1-3         Aug-10 [rown mattle (cover base)         Antrack Office         none detected         Imm           71 Be CD1-1         Aug-10 [rown mattle (cover base)         Antrack Office         none detected         Imm           71 Be CD1-3         Aug-10 [rown mattle (cover base)         Antrack Office         none detected         Imm           71 Be CD1-3         Aug-10 [rown mattle (celling tile)         Antrack Office         none detected         Imm           71 Be CD1-3         Aug-10 [rown mattle (celling tile)         Antrack Office         none detected         Imm           71 LC C1-3         Aug-10 [rown mattle (celling tile)         Antrack Office         none detected         Imm           71 LC C1-	Innovar, 2011
66 06:CB1.2     Aug.10 [an mastic (cover base)     Antrack Office     0.45     0.45       67 06:CB1.3     Aug.10 [an plaster (cover base)     Antrack Office     0.45     0.45       68 06:CB1.4     Aug.10 [an plaster (cover base)     Antrack Office     none detected     im       69 05:CB1.2     Aug.10 [an mastic (cover base)     Antrack Office     none detected     im       70 05:CB1.2     Aug.10 [an mastic (cover base)     Antrack Office     none detected     im       71 05:CE1.3     Aug.10 [an mastic (cover base)     Antrack Office     none detected     im       71 05:CE1.3     Aug.10 [an plaster (cover base)     Antrack Office     none detected     im       72 05:CE1.4     Aug.10 [an calling (celling tile)     Antrack Office     none detected     im       73 10:CT1.2     Aug.10 [an calling (celling tile)     Antrack Office     none detected     im       71 10:CT1.3     Aug.10 [an calling (celling tile)     Antrack Office     none detected     im       71 11:CT1.2     Aug.10 [an calling (celling tile)     Antrack Office     none detected     im       72 11:CT1.3     Aug.10 [an calling (celling tile)     Antrack Office     none detected     im       72 12:CT1.4     Aug.10 [an calling (celling tile)     Antrack Office     none detected     im       73 12:C	Innovar, 2011
67 BeCB1-3         Aug-10 forwam matric (cover base)         Antrack Office         Other         Other         Other         Other         Other         Other         Im         Monte         Monte<	Innovar, 2011
68     Becall -     Aug 10 In plaster (cover base)     Antrack Office     none detected     Imm       70     96:08:12     Aug 10 In matic (cover base)     Antrack Office     none detected     Imm       71     95:08:13     Aug 10 In matic (cover base)     Antrack Office     none detected     Imm       71     95:08:14     Aug 10 In ansite (cover base)     Antrack Office     none detected     Imm       72     95:08:14     Aug 10 In ansite (cover base)     Antrack Office     none detected     Imm       73     10:C11-1     Aug 10 Whte surfacing (celling tile)     Antrack Office     none detected     Imm       74     10:C11-2     Aug 10 Whte surfacing (celling tile)     Antrack Office     none detected     Imm       75     11:C11-1     Aug 10 Whte surfacing (celling tile)     Antrack Office     none detected     Imm       76     11:C11-2     Aug 10 In ancelling tile (celling tile)     Antrack Office     none detected     Imm       71     11:C11-2     Aug 10 In ancelling tile (selling tile)     Antrack Office     none detected     Imm       71     11:C11-2     Aug 10 In ancelling tile (selling tile)     Antrack Office     none detected     Imm       73     11:C11-2     Aug 10 In ancelling tile (selling tile)     Antrack Office     none detecte	Innovar, 2011
669         0c-08-1-         Aug-10 [nick cover base]         Antrack Office         none detected         Imm           70         0c-08-13         Aug-10 [nick cover base]         Antrack Office         none detected         Imm           71         0c-081-3         Aug-10 [nick cover base]         Antrack Office         none detected         Imm           72         0c-081-4         Aug-10 [nick cover base]         Antrack Office         none detected         Imm           73         10c-071-2         Aug-10 [nic ceiling (ceiling tile)         Antrack Office         none detected         Imm           74         10c-071-2         Aug-10 [nic ceiling (ceiling tile)         Antrack Office         none detected         Imm           75         10c-071-3         Aug-10 [nic ceiling tile]         Antrack Office         none detected         Imm           71         11c-01-4         Aug-10 [nic ceiling tile]         Antrack Office         none detected         Imm           71         11c-01-4         Aug-10 [nic ceiling tile]         Antrack Office         none detected         Imm           72         12c-01-1         Aug-10 [nic ceiling tile]         Antrack Office         none detected         Imm           73         12c-01-4         Aug-10 [nic ceiling tile]	Innovar, 2011
700     00:061:2     Ange10     the mastic (cover base)     Antrack Office     none detected     inn       71     09:061:3     Auge10     brown mastic (cover base)     Antrack Office     none detected     inn       72     09:061:3     Auge10     brown mastic (cover base)     Antrack Office     none detected     inn       73     10:0C11:1     Auge10     brain [celling tile]     Antrack Office     none detected     inn       73     10:0C11:2     Auge10     brown mastic (celling tile)     Antrack Office     none detected     inn       75     10:0C11:3     Auge10     brown mastic (celling tile)     Antrack Office     none detected     inn       76     11:0C11:1     Auge10     brown mastic (celling tile)     Antrack Office     none detected     inn       77     11:0C11:1     Auge10     brown mastic (celling tile)     Antrack Office     none detected     inn       78     12:C11:1     Auge10     brown mastic (celling tile)     Antrack Office     none detected     inn       78     12:C11:1     Auge10     brown mastic (celling tile)     Antrack Office     none detected     inn       80     12:C11:1     Auge10     brown fastic gelling tile)     Antrack Office     none detected     inn	Innovar, 2011
71       Do-GB1-3       Aug-10 brown mastle (cover base)       Antrack Office       none detected       infi         72       Do-GB1-4       Aug-10 thin plaster (cover base)       Antrack Office       none detected       infi         73       Do-C11-2       Aug-10 thin surfacing (celling tile)       Antrack Office       none detected       infi         71       Do-C11-2       Aug-10 than exiling (celling tile)       Antrack Office       none detected       infi         75       IO-C11-3       Aug-10 than exiling (celling tile)       Antrack Office       none detected       infi         71       IO-C11-2       Aug-10 than exiling tile (celling tile)       Antrack Office       none detected       infi         71       IO-C11-2       Aug-10 than exiling tile (celling tile)       Antrack Office       none detected       infi         79       IO-C11-1       Aug-10 than exiling (Window Caulk)       Antrack Office       none detected       infi         80       IO-C11-2       Aug-10 thack surfacing white caulking (Window Caulk)       Antrack Office       none detected       infi         81       IO-C11-2       Aug-10 black surfacing white caulking (Window Caulk)       Antrack Office       none detected       infi         81       IO-C12-1       Aug-10 black surfacing white	Innovar, 2011
72     09-CB1-4     Aug-10     paister (over base)     Antrack Office     none detected     in       73     10-CT1-1     Aug-10     white surfacing (celling tile)     Antrack Office     none detected     in       74     10-CT1-2     Aug-10     Train celling (celling tile)     Antrack Office     none detected     in       75     10-CT1-3     Aug-10     Train celling (celling tile)     Antrack Office     none detected     in       76     11-CT1-1     Aug-10     Train celling tile (celling tile)     Antrack Office     none detected     in       77     11-CT1-3     Aug-10     Train celling tile (celling tile)     Antrack Office     none detected     in       78     11-CT1-3     Aug-10     Train celling tile (celling tile)     Antrack Office     none detected     in       79     12-CT1-1     Aug-10     Train celling tile)     Antrack Office     none detected     in       80     12-CT1-2     Aug-10     Diack surfacing white caulking (Window Caulk)     Antrack Office     none detected     in       81     13-WCL1     Aug-10     Diack surfacing white caulking (Window Caulk)     Antrack Office     none detected     in       81     13-WCL1     Aug-10     Diack surfacing white caulking (Window Caulk)     Antrack Office	Innovar, 2011
72     DeCTI-1     Aug-10     Antrack Office     none detected     inn       74     10-CTI-2     Aug-10     brown mastic (celling tile)     Antrack Office     none detected     inn       75     10-CTI-3     Aug-10     brown mastic (celling tile)     Antrack Office     none detected     inn       75     11-CTI-1     Aug-10     brown mastic (celling tile)     Antrack Office     none detected     inn       78     11-CTI-2     Aug-10     training tile (celling tile)     Antrack Office     none detected     inn       79     12-CTI-1     Aug-10     training tile (celling tile)     Antrack Office     none detected     inn       79     12-CTI-2     Aug-10     brown mastic (celling tile)     Antrack Office     none detected     inn       70     12-CTI-2     Aug-10     black surfacing white caulking (Window Caulk)     Antrack Office     none detected     inn       81     13-WCI-1     Aug-10     black surfacing white caulking (Window Caulk)     Antrack Office     none detected     inn       82     14-WCI-1     Aug-10     black surfacing white caulking (Window Caulk)     Antrack Office     none detected     inn       83     15-WCI-1     Aug-10     black surfacing (celling tile)     Museum     none detected     inn <td>Innovar, 2011</td>	Innovar, 2011
74     IO-CTI-2     Aug-10     Incelling (celling tile)     Antrack Office     none detected     Inn       75     IO-CTI-3     Aug-10     brown mastic (celling tile)     Antrack Office     none detected     Inn       75     IO-CTI-3     Aug-10     bite (celling tile)     Antrack Office     none detected     Inn       77     I1-CTI-3     Aug-10     bite (celling tile)     Antrack Office     none detected     Inn       78     I1-CTI-3     Aug-10     bite (celling tile)     Antrack Office     none detected     Inn       78     I1-CTI-3     Aug-10     brown mastic (celling tile)     Antrack Office     none detected     Inn       78     I1-CTI-4     Aug-10     brack surfacing white caulking (Window Caulk)     Antrack Office     none detected     Inn       80     I2-CTI-1     Aug-10     black surfacing white caulking (Window Caulk)     Antrack Office     none detected     Inn       81     I3-WCI-1     Aug-10     black surfacing white caulking (Window Caulk)     Antrack Office     none detected     Inn       83     I5-CT2-1     Aug-10     black surfacing (celling tile)     Museum     none detected     Inn       84     I5-CT2-1     Aug-10     orde celling tile)     Museum     none detected     Inn	Innovar, 2011
75ED-CTT-3Aug-30 brown mastic (ceiling tile)Amtrack Officenone detectedint7611-CT1-1Aug-30 white surfacing (ceiling tile)Amtrack Officenone detectedInt7811-CT1-2Aug-30 brown mastic (ceiling tile)Amtrack Officenone detectedInt7811-CT1-3Aug-30 brown mastic (ceiling tile)Amtrack Officenone detectedInt7912-CT1-1Aug-30 brown mastic (ceiling tile)Amtrack Officenone detectedInt8012-CT1-2Aug-30 brown mastic (ceiling tile)Amtrack Officenone detectedInt8113-WC1-1Aug-30 block surfacing white cauking (Window Cauk)Amtrack Officenone detectedInt8113-WC1-1Aug-30 block surfacing white cauking (Window Cauk)Amtrack Officenone detectedInt8315-WC1-1Aug-30 block surfacing white cauking (Window Cauk)Museumnone detectedInt8416-CT2-1Aug-30 block surfacing white cauking (Window Cauk)Museumnone detectedInt8516-CT2-2Aug-30 Gray ceiling tile (ceiling tile)Museumnone detectedInt8617-CT2-2Aug-30 gray ceiling tile (ceiling tile)Museumnone detectedInt8717-CT2-2Aug-30 gray ceiling tile (ceiling tile)Museumnone detectedInt8818-CT2-1Aug-30 gray ceiling tile (ceiling tile)Museumnone detectedInt8918-CT2-2Aug-30 gray ceiling tile (ceiling tile)<	Innovar, 2011
7611-CT1-1Aug-10white surfacing (celling tile)Amtrack Officenone detectedInn7711-CT1-2Aug-10 tan celling tile (celling tile)Amtrack Officenone detectedInn7811-CT1-3Aug-10 tan celling tile (no surfacing) (celling tile)Amtrack Officenone detectedInn7811-CT1-3Aug-10 tan celling tile (no surfacing) (celling tile)Amtrack Officenone detectedInn8012-CT1-1Aug-10 black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8113-WC1-1Aug-10 black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8113-WC1-1Aug-10 black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8416-CT2-1Aug-10 white surfacing (celling tile)Museumnone detectedInn8517-CT2-2Aug-10 white surfacing (celling tile)Museumnone detectedInn8617-CT2-1Aug-10 white surfacing (celling tile)Museumnone detectedInn8717-CT2-2Aug-10 Gray celling tile (celling tile)Museumnone detectedInn8818-CT2-1Aug-10 white surfacing (celling tile)Museumnone detectedInn8918-CT2-2Aug-10 white surfacing (celling tile)Museumnone detectedInn91120-W1-1Aug-10 black woren covering (Wring)Museumnone detectedInn91120-W1-1Aug-10 black	Innovar, 2011
7711-CT1-2Aug-10Ian ceiling tile (ceiling tile)Amtrack Officenone detectedInn7811-CT1-3Aug-10Jorown mastic (ceiling tile)Amtrack Officenone detectedInn7912-CT1-1Aug-10lan ceiling tile (no surfacing) (ceiling tile)Amtrack Officenone detectedInn8012-CT1-2Aug-10brown mastic (ceiling tile)Amtrack Officenone detectedInn8113-WC1-1Aug-10black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8115-WC1-1Aug-10black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8315-WC1-1Aug-10black surfacing white caulking (Window Caulk)Museumnone detectedInn8416-CT2-1Aug-10black surfacing (ceiling tile)Museumnone detectedInn8516-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInn8617-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInn8717-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInn8818-CT2-1Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInn9919-W1-1Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInn9919-W1-1Aug-10Gray ceiling tileMuseumnone detected	Innovar, 2011
7811-CT1-3Aug-10brown mastic (ceiling tile)Amtrack Officenone detectedInn7912-CT1-1Aug-10 tan cellign tile (no surfacing) (celling tile)Amtrack Officenone detectedInn8012-CT1-2Aug-10brown mastic (ceiling tile)Amtrack Officenone detectedInn8113-WC1-1Aug-10black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8214-WC1-1Aug-10black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8315-WC1-1Aug-10black surfacing white caulking (Window Caulk)Museumnone detectedInn8416-CT2-1Aug-10white surfacing (celling tile)Museumnone detectedInn8516-CT2-2Aug-10Gray celling tile (celling tile)Museumnone detectedInn8617-CT2-1Aug-10Gray celling tile (celling tile)Museumnone detectedInn8718-CT2-2Aug-10Gray celling tile (celling tile)Museumnone detectedInn8818-CT2-1Aug-10Gray celling tile (celling tile)Museumnone detectedInn8918-CT2-2Aug-10Gray celling tile (celling tile)Museumnone detectedInn9019-W1-1Aug-10black swore covering (Wiring)Museumnone detectedInn9120-W1-1Aug-10black swore covering (Wiring)Museumnone detected <t< td=""><td>Innovar, 2011</td></t<>	Innovar, 2011
7912-CT1-1Aug-10tan cellign tile (no surfacing) (celling tile)Amtrack Officenone detectedInn8012-CT1-2Aug-10brown mastic (celling tile)Amtrack Officenone detectedInn8113-WCC1-1Aug-10black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8214-WC1-1Aug-10black surfacing white caulking (Window Caulk)Amtrack Officenone detectedInn8315-WC1-1Aug-10black surfacing (celling tile)Museumnone detectedInn8416-CT2-1Aug-10bhite surfacing (celling tile)Museumnone detectedInn8516-CT2-2Aug-10Gray celling tile (celling tile)Museumnone detectedInn8617-CT2-1Aug-10White surfacing (celling tile)Museumnone detectedInn8717-CT2-2Aug-10Gray celling tile (celling tile)Museumnone detectedInn8818-CT2-1Aug-10Gray celling tile (celling tile)Museumnone detectedInn9019-W1-1Aug-10Gray celling tile (celling tile)Museumnone detectedInn9112-CY1-4Aug-10Gray celling tile (celling tile)Museumnone detectedInn9113029.029-020513-01Feb-1312" Spline Celling TileOffice Shack, Blacksmith Shopnone detectedPoor/Friable9313029.029-020513-02Feb-1312" Spline Celling TileOff	Innovar, 2011
80       12-CT1-2       Aug-10       brown mastic (ceiling tile)       Amtrack Office       none detected       inn         81       13-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Amtrack Office       none detected       inn         82       14-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Amtrack Office       none detected       inn         83       15-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Museum       none detected       inn         84       16-CT2-1       Aug-10       Gray ceiling tile)       Museum       none detected       inn         85       16-CT2-2       Aug-10       Gray ceiling tile)       Museum       none detected       inn         86       17-CT2-1       Aug-10       Gray ceiling tile)       Museum       none detected       inn         87       17-CT2-2       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       inn         89       18-CT2-1       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       inn         90       19-W1-1       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       inn	Innovar, 2011
81       13-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Amtrack Office       none detected       Im         82       14-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Murack Office       none detected       Im         83       15-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Museum       none detected       Im         84       16-CT2-1       Aug-10       white surfacing (ceiling tile)       Museum       none detected       Im         85       16-CT2-2       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       Im         86       17-CT2-1       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       Im         87       17-CT2-2       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       Im         88       18-CT2-1       Aug-10       Gray ceiling tile (ceiling tile)       Museum       none detected       Im         91       19-UT-1       Aug-10       black woven covering (Wiring)       Museum       none detected       Im         91       1020-029-020513-01       Feb-13       12" Spline Ceiling Tile       Office Shack, Blacksmith Shop       none dete	Innovar, 2011
82       14-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Amtrack Office       none detected       Inr         83       15-WC1-1       Aug-10       black surfacing white caulking (Window Caulk)       Museum       none detected       Inr         84       16-CT2-1       Aug-10       Gray celling tile (celling tile)       Museum       none detected       Inr         85       16-CT2-2       Aug-10       Gray celling tile (celling tile)       Museum       none detected       Inr         86       17-CT2-1       Aug-10       Gray celling tile (celling tile)       Museum       none detected       Inr         87       17-CT2-2       Aug-10       Gray celling tile (celling tile)       Museum       none detected       Inr         88       18-CT2-1       Aug-10       Gray celling tile (celling tile)       Museum       none detected       Inr         99       19-W1-1       Aug-10       Black woven covering (Wiring)       Museum       none detected       Inr         91       19-W1-1       Aug-10       black woven covering (Wiring)       Museum       none detected       Inr         91       1020-029-020513-01       Feb-13       12" Spline Celling Tile       Office Shack, Blacksmith Shop       none detected	Innovar, 2011
8315-WC1-1Aug-10black surfacing white caulking (Window Caulk)Museumnone detectedInr8416-CT2-1Aug-10white surfacing (ceiling tile)Museumnone detectedInr8516-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8617-CT2-1Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8617-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8818-CT2-1Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8818-CT2-1Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8918-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr9019-W1-1Aug-10black woven covering (Wiring)Museumnone detectedInr9110-W1-1Aug-10black woven covering (Wiring)Museumnone detectedPoor/Friable9213029.029-020513-01Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/Friable9413029.029-020513-03Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/Friable9513029.029-020513-04Feb-13Iterior Plaster - Surface CoatOffice Shack, Blacksmith Shopnone detectedPoor/Friable9613029.029-020513-05Feb-13Interior	Innovar, 2011
8416-CT2-1Aug-10white surfacing (ceiling tile)Museumnone detectedInr8516-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8617-CT2-1Aug-10White Surfacing (ceiling tile)Museumnone detectedInr8617-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8717-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8818-CT2-1Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr9018-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr9118-CT2-1Aug-10black woven covering (Wiring)Museumnone detectedInr9110-W1-1Aug-10black woven covering (Wiring)Museumnone detectedInr91120-W1-1Aug-10black woven covering (Wiring)Museumnone detectedPoor/Friable9213029.029-020513-01Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/Friable9313029.029-020513-03Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/Friable9413029.029-020513-04Feb-1311erior Plaster - Surface CoatOffice Shack, Blacksmith Shopnone detectedPoor/Friable9613029.029-020513-05Feb-13Interior Plaster - Surface	Innovar, 2011
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8717-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr8818-CT2-1Aug-10white surfacing (ceiling tile)Museumnone detectedInr8918-CT2-2Aug-10Gray ceiling tile (ceiling tile)Museumnone detectedInr9019-W1-1Aug-10black woven covering (Wiring)Museumnone detectedInr9120-W1-1Aug-10black woven covering (Wiring)Museumnone detectedInr9213029.029-020513-01Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/Friable9313029.029-020513-02Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/FriableRo9413029.029-020513-03Feb-1312" Spline Ceiling TileOffice Shack, Blacksmith Shopnone detectedPoor/FriableRo9513029.029-020513-03Feb-13Interior Plaster - Surface CoatOffice Shack, Blacksmith Shopnone detectedPoor/FriableRo9613029.029-020513-05Feb-13Interior Plaster - Surface CoatOffice Shack, Blacksmith Shopnone detectedPoor/FriableRo9713029.029-020513-06Feb-13Interior Plaster - Surface CoatOffice Shack, Blacksmith Shopnone detectedPoor/FriableRo9813029.029-020513-07Feb-13Interior Plaster - Surface CoatOffice Shack, Blacksmith Shopnone detectedPoor/FriableRo	Innovar, 2011
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100     13029.029-020513-09     Feb-13     Interior Plaster - Surface Coat     Office Shack, Blacksmith Shop     none detected     Poor/Friable     Ro	Roades, 2013
	Roades, 2013
101 12020 020 020 12 10 Eph 12 Window Clazing Painforced Class Placksmith Shop page detected Page/Erisble Pa	Roades, 2013
	Roades, 2013

ID	Sample Number	Date	Description	Location	Percent Asbestos	Asbestos Type	Classification	Source
109	13029.029-020513-18	Feb-13	Window Glazing	Wood Panes, Blacksmith Shop	none detected		Poor/Friable	Roades, 2013
110	13029.029-020513-19	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
111	13029.029-020513-20	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
112	13029.029.020513-21	Feb-13	Gray Parapet Tar	Throughout Roof, Blacksmith Shop	10%	Chrysotile	Poor/Non-Friable	Roades, 2013
113	13029.029-020513-22	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
114	13029.029.020513-23	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
115	13029.029-020513-24	Feb-13	Black Roofing Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
116	13029.029.020513-25	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
117	13029.029.020513-26	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
118	13029.029-020513-27	Feb-13	Black Penetration Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
119	13029.029-020513-28	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
120	13029.029-020513-29	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
121	13029.029-020513-30	Feb-13	Gray Roofing Felt	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
122	13029.029-020513-31	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	8%	Chrysotile	Poor/Non-Friable	Roades, 2013
123	13029.029-020513-32	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
124	13029.029-020513-33	Feb-13	Black Parapet Tar	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
125	13029.029-020513-34	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
126	13029.029-020513-35	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
127	13029.029-020513-36	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
128	13029.029-020513-34a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
129	13029.029-020513-35a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
130	13029.029-020513-36a	Feb-13	Black Roofing Felt - Patching	Throughout Roof, Blacksmith Shop	none detected		Poor/Non-Friable	Roades, 2013
131	13029.029-020513-37	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	2%	Chrysotile	Poor/Friable	Roades, 2013
132	13029.029-020513-38	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	3%	Chrysotile	Poor/Friable	Roades, 2013
133	13029.029-020513-39	Feb-13	Window Glazing	Plastic Panes, Blacksmith Shop	3%	Chrysotile	Poor/Friable	Roades, 2013

Appendix D Lead Based Paint Laboratory Analysis Results





Client: DC Environmental PO Box 9315 Albuquerque , NM 87119

CEI Lab Code: C16-0817 Received: 11-14-16 Analyzed: 11-18-16 Reported: 11-18-16

Project: Rail Yard Parcel 8 Boiler Shop; DCE 16-179

## ANALYSIS METHOD: EPA SW846 7000B

CLIENT ID	CEI LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
16-179-1000	CA58063	5100	0.51
16-179-1001	CA58064	16000	1.6
16-179-1002	CA58065	2400	0.24
16-179-1003	CA58066	920	0.092
16-179-1004	CA58067	66000	6.6
16-179-1005	CA58068	4900	0.49

Lab Code: C16-0817

## ANALYSIS METHOD: EPA SW846 7000B

CLIENT ID	CEI LAB ID	PPM (µg/g)	CONCENTRATION % BY WEIGHT
Reviewed By:	Mansas De	_	
	Tianbao Bai, Ph.D. Laboratory Director		

This method has been validated for sample weights of 0.020g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations. \* The analysis of composite wipe samples as a single samples is not included under AIHA accreditation.

Minimum reporting limit is 10 µg total lead. Sample results denoted with a "less than" (<) sign contain less than 10.0 µg total lead, based on a 40ml sample volume.

Lead samples are not analyzed by CEI Labs Lead samples are submitted to an AIHA ELLAP accredited laboratory for lead analysis of soil, dust, paint, and TCLP samples.

Laboratory results represent the analysis of samples as submitted by the client. Information regarding sample location, description, area, volume, etc., was provided by the client. Unless notified in writing to return samples, CEI Labs discards client samples after 30 days. This report shall not be reproduced, except in full, without the written consent of CEI Labs.

REGULATORY LIMITS	OSHA Standard: No safe limit. Consumer Products Safety Standard: Greater than 0.06% lead by weight. Federal Lead Standard / HUD: 0.5% lead by weight.					
LEGEND	µg = microgram ml = milliliter	ppm = parts per million Pb = lead	g = grams wt = weight			
			E	End of Report		

(16-0817 (G

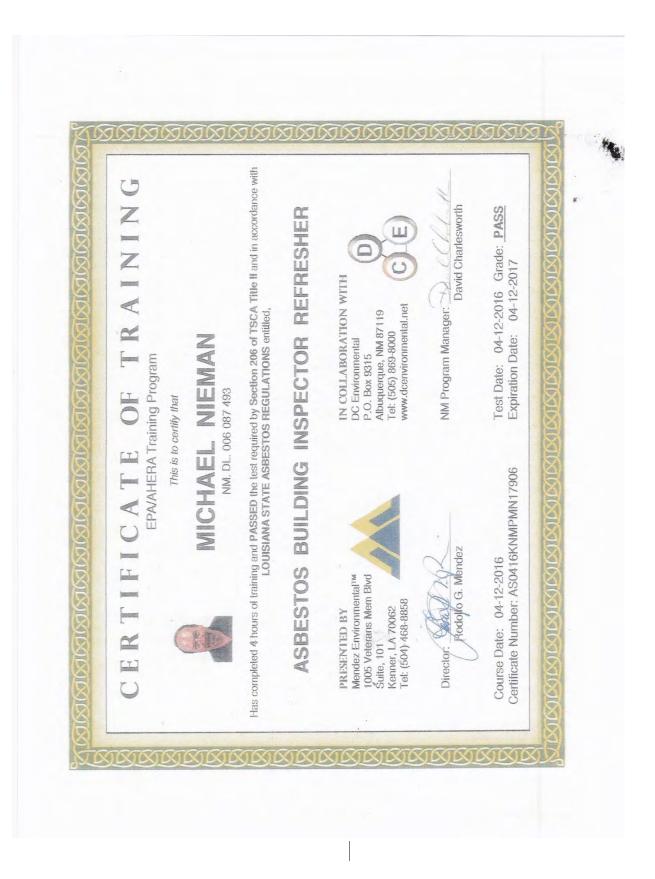
					C	1580	j3-0	958068	
			PO / Job#: DCE	16-179			1/01/2016		
D DC Environmental			Tum Around Time: Same Day / 1Day / 2Day / 3Day / 4Day//			(1 5Day			
Consulting and Training	Warkeloog	D PCM: D NIOS	H 7400A		7400B	Rotomet	er		
"Promoting S	arety in the	workplace							
DC Environmental PO Box 9315 Albuquerque, NM 87119			PLM: Standard / Point Count 400 - 1000 / CARB 435						
Contact: J. David Charlesworth			□ TEM Air: □ AHERA / □ Yamate2 / □ NIOSH 7402 □ TEM Bulk: □ Quantitative / □ Qualitative / □ Chatfield □ TEM Water: □ Potable / □ Non-Potable / □ Weight % □ TEM Microvac: □ Qual(+/-) / □ D5755(str/area) / □ D5756(str/mass)						
Phone: 505.869.8000	Fax:	869.9453							
E-mail: JDCharlesworthcih@gmail.con			□ IAQ Particle Identification (PLM LAB) □ PLM Opaques/Soot □ Particle Identification (TEM LAB) □ Special Project						
Site: City of Albuquerque (Inte	_	<u></u>	Metals Analysis	-				·•	
Site Location: Rail Yard Parcel	8 Boiler Sh	10n	Matrix:						
			Analytes:						
Comments: 'Paint chips to be a	nalyzed for	Lead Based Paint	··						
		Semula Lassition / Deser			FOR AIR SAMPLES ONLY			Sample Area /	
Sample ID	Date	Sample Location / Descr	iption / Task	Туре	Time	Avg.	Total	Air	
16-179-1000				A	On/Off	LPM	Time	Volume	
10-110-1000	11/01	Red and White floor strij Shop	be from Boiler	P C					
16-179-1001	11/01	Silver Paint from Colu Shop	A P C		-				
16-179-1002	11/01	Silver Paint from Wall in	n Boiler Shop	A P C					
16-179-1003	11/01	White Paint from Wall	Boiler Shop	A P C					
16-179-1004	11/01	Black wall from Con Boiler Sho		A P C					
16-179-1005	11/01	Red Paint from Column i	<u> </u>	A P					
				C A	-				
				P C					
				A P		-			
·		· 		C A			<u> </u>	-	
				P C					
				A P C					
Sampled By: Steven Gutierrez	<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>	<u> </u>		······································	<u></u>			
Shipped Via:  Ged Ex	HL OU	PS 🗆 US Mail 🗆 Courier	r 🗖 Drop Off	Other	••				
Palinguished Day Starra Cuti-	Relinquished By:			Relinquished	By:				
Relinquished By: Steven Gutierrez Date / Time: 11/11/2016 5:00PM		Date / Time:	e:			Date / Time:			
Received By: AC	Received By:	Received By:							
Date / Time: 11/14/16 9	Date / Time:	Date / Time:							
Condition Acceptable?  Yes	D No	Condition Acceptable?	□ Yes □ No Condition Acceptable? □ Yes □ No				No		

Appendix E Photography Log



Appendix F

Certificates



States Emironmental Protection Agency This is to certify that	Michael Neiman has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as: Inspector	New Mexico This certification is valid from the date of issuance and expires September 25, 2017	Arriene Priselac, Manager, Toxics Office Land Division
United St			NM-I-129246-1 Certification # September 11, 2014 Issued On

LBP-I-I159998-1 Certification # April 06, 2016 Issued On	All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories This certification is valid from the date of issuance and expires April 20, 2019	In the Invision	Inspector	has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:	Steven P Gutierrez	This is to certify that	United States Environmental Protection Agency
Advienne Priselac, Manager, Toxics Office Land Division	am States, Tribes and Territories April 20, 2019	ium af:	NA.	Itrol Act (TSCA) Section 402, and has pursuant to 40 CFR Part 745.226 as:		y that	1 Protection Agency

